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METEOROLOGICAL OBSERVATIONS

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ABSTRACT FROM THE COUNTRY STATIONS,

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1871
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FOR THE

MONTH OF APRIL, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1871.

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By Transfer
U. S. Naval Observatory.
JUN 24 1935

7,25

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY,

APRIL, 1871.

LATITUDE 33° 51′ 41″ LONGITUDE 10h 4m 46s

Magnetic Variation 9° 34′ 35″ East.

GENERAL ABSTRACT.

BAROMETER ..	Highest Reading	30·220	... On the 21st, at 9 and 10 a.m.
	Lowest Reading	29·475	... On the 30th, at 5 a.m.
	Mean Height	29·882	

(Being 0·170 inches less than that in the same month on an average of the preceding 12 years.)

WIND	Greatest Pressure... ...	11·0 lbs.	... On the 28th.
	Mean Pressure	0·6 lbs.	
	Number of Days Calm ...	0	
	Prevailing Direction ...	W.	

(Prevailing direction during the same month for the preceding 12 years ... W.)

TEMPERATURE	Highest in the Shade ...	78·4	... On the 8th.
	Lowest in the Shade ...	51·8	... On the 17th & 23rd.
	Greatest Range	23·3	... On the 23rd.
	Highest in the Sun ...	119·3	... On the 8th.
	Highest in a Black Box with Glass Top	168·0	... On the 8th.
	Lowest on the Grass ...	47·7	... On the 14th.
	Mean Diurnal Range ...	13·3	
	Mean in the Shade ...	63·9	

(Being 1·4 less than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..	Greatest Amount... ...	100·0	... On the 27th, 28th, 29th, & 30th.
	Least	56·0	... On the 22nd.
	Mean	81·1	

(Being 4·1 greater than that of the same month on an average of the preceding 12 years.)

RAIN	Greatest Fall	2·964 inches.	On the 29th.
	Number of Days	12	
	Total Fall	11·931 inches.	65 ft. above the ground.
		12·539 inches.	15 inches above the ground.

(Being 4·822 inches greater than that of the same month on an average of the preceding 12 years.)

EVAPORATION	Total Amount	2·215 inches.
OZONE	Mean Amount	4·2

(Being 0·7 less than that in the same month on an average of the preceding 11 years.)

ELECTRICITY ..	Number of Days Lightning ...	5
CLOUDY SKY ..	Mean Amount	5·0
	Number of Clear Days	3
METEORS ..	Number Observed	11

REMARKS.

Up to 26th the weather was fine and pleasant, with light westerly winds, and little rain, except on the 11th, when heavy rain began at 2 p.m., with thunder and lightning, and continued in showers to midnight.

On the 5th a faint Aurora was seen in Sydney, and on 24th it was again seen at Sydney from 9·7 to 9·20 p.m.; at Eden from 9 p.m. to 3 a.m.; at Cape George from 11·50 p.m. to 1·40 a.m.

On the 26th heavy rain began in Sydney at night, and was general over the Colony to the end of the month. On the 29th the Hawkesbury was up 40 feet, and all low lands were under water. On 30th the Hunter was up 25 feet, and on Sunday the Shoalhaven and Araluen were in high flood, and much damage was done at both places.

On the 27th, at 9·30 a.m., a very sudden depression of the Barometer is recorded. At the same time the clouds were observed coming from all directions to a point over the Observatory, and there ascending. At 9·45 a.m. a water spout off South Head is recorded, and at noon a remarkable shower of rain off Botany, upon which the sun shone and made colored beams of light.

SYDNEY, APRIL, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level	Wind.		Temperature.									Humidity 0-100.
					Dry.	Wet.	Shade.				Sun.	Grass.	Sea Water.	
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.	9 a.m.	Mean 9.3.9.
1		30·154	S.S.E.	299	66·8	63·1	70·9	61·8	9·1	66·4	108·3	58·9	68·8	78·7
2		·153	S.	280	66·2	60·7	71·4	58·3	13·1	64·9	110·9	54·3	68·6	70·0
3		·129	S.	295	66·9	60·2	71·5	57·4	14·1	64·5	110·0	53·4	68·8	65·3
4		·118	W.S.W.	342	62·8	59·4	69·1	56·4	12·7	62·8	109·0	53·6	68·6	80·0
5	In Equat.	·091	W.	300	65·0	59·7	69·1	58·0	11·1	63·6	106·8	54·1	68·8	71·7
6	Full.	·130	W.	164	64·7	60·5	70·5	55·4	15·1	63·0	112·0	51·7	68·4	76·7
7		·136	E.	165	64·7	61·7	72·3	57·8	14·5	65·1	113·7	53·2	68·4	82·0
8	Perigee.	·088	W.N.W.	179	69·1	65·5	78·4	56·3	22·1	67·4	119·3	53·0	68·5	81·0
9		·181	W.N.W.	142	68·4	66·0	75·3	62·0	13·3	68·7	116·6	58·3	68·4	86·0
10		·167	E.	251	73·1	69·6	77·2	63·5	13·7	70·4	114·0	60·1	68·5	81·0
11	G.S. Dec.	29·972	S.	326	63·6	62·0	74·1	68·5	5·6	71·3	...	63·6	68·4	90·3
12	Last Qr.	30·112	S.	158	61·7	59·8	66·8	55·9	10·9	61·4	97·7	53·1	68·8	87·7
13		29·941	W.	254	63·2	59·9	70·7	56·8	13·9	63·8	110·0	51·9	68·6	81·0
14		30·188	S.	327	61·8	56·2	67·6	51·9	15·7	59·8	106·8	47·7	68·8	69·3
15		·413	S.	273	61·1	56·4	65·7	55·3	10·4	60·5	105·0	51·5	68·6	72·3
16		·403	W.	125	58·8	56·0	67·7	53·2	14·5	60·5	109·4	50·1	68·4	82·0
17		·345	W.	158	61·7	58·4	70·0	51·8	18·2	60·9	112·4	49·2	68·6	81·0
18	In Equat.	·372	W.	177	63·3	59·2	69·1	53·4	15·7	61·3	110·4	50·2	68·8	77·3
19		·323	N.N.E.	320	65·3	60·7	72·4	54·9	17·5	63·7	111·8	51·7	68·4	75·3
20	New.	·243	S.	327	65·1	59·4	70·3	56·4	13·9	63·4	106·8	52·9	68·8	69·0
21		·486	S.	246	61·1	58·3	65·3	55·5	9·8	60·4	93·3	51·1	68·6	82·3
22		·325	N.	185	63·0	57·8	70·1	53·9	16·2	62·0	111·6	49·8	68·8	71·7
23	Apogee.	·175	N.	171	57·6	55·2	75·1	51·8	23·3	63·5	110·1	48·1	68·6	84·0
24		·195	N.	199	64·7	60·5	71·7	53·8	17·9	62·8	107·5	48·8	68·4	76·0
25		·144	W.	140	64·8	62·5	72·4	56·3	16·1	64·4	110·5	52·1	68·6	86·0
26	G.N. Dec.	·191	S.S.E.	178	65·8	63·2	71·2	57·8	13·4	64·5	105·0	54·2	68·4	85·0
27		·165	S.	105	63·2	63·0	66·4	59·7	6·7	63·1	78·9	57·0	68·2	98·9
28	First Qr.	29·980	E.S.E.	558	64·6	64·4	68·9	60·5	8·4	64·7	76·9	58·1	68·0	99·0
29		·853	S.S.E.	339	65·0	63·7	67·1	62·4	4·7	64·8	80·0	59·2	67·6	92·3
30		·899	E.S.E.	469	63·2	63·2	68·3	60·0	8·3	64·2	90·0	57·1	67·0	100·0
				Sum.										
Means	.....	30·169	W.	7452	64·2	60·9	70·6	57·2	13·3	63·9	105·3	53·6	68·5	81·1

Observations of Standard Barometer taken at 9 a.m., corrected to 32° Fah. and Mean Sea Level. Direction, velocity, and pressure of the wind deduced from 24 hourly records of Robinson's Anemometer. The Barometer at 9 a.m. reads 0·044 above the true mean for the day.

SYDNEY, APRIL, 1871.

Date.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
1	0·075	0·104	3·5	4·0	3·8	9·0	Cloudy and dull all day, at 7·30 p.m. clouds began clearing, and fine at 8 p.m. for about half an hour.
2	·0	0·166	...	...	1·8	4·0	Fine all day until 8 p.m. Lunar halo 8·30 p.m.
3	·0	0·118	3·0	5·0	4·0	4·3	Morning fine until 10 a.m., remainder of day cloudy. Lunar halos during evening.
4	0·248	0·090	3·5	5·5	4·5	9·3	Cloudy day, showery from 4·30 a.m. until 7 a.m., evening fine from 9·10 p.m. until 9·30 p.m., and turned cloudy again.
5	0·012	0·136	3·0	5·0	4·0	3·0	Fine day, until 9·20 p.m., when it became cloudy. Lunar halo at 9·20 p.m. Lightning E. and N.E. all evening. Auroral tinge S.E. at 8 p.m.
6	·0	0·102	2·0	4·5	3·3	4·0	Fine day, until 8 p.m., except at short intervals, at 8 p.m. clouds began to form, and soon spread all over.
7	·0	0·084	...	...	2·3	0·0	Fine, clear, and warm throughout day, evening calm.
8	·0	0·080	3·0	5·0	4·0	0·7	Fine all day, evening clear, no clouds visible.
9	·0	0·084	...	...	2·5	4·0	Fine, warm, cloudy part of forenoon and all evening.
10	·0	0·108	3·5	4·0	3·8	0·7	Fine and warm all day, evening clear. Two meteors observed at 8·10 p.m., and 9 p.m. respectively.
11	·0	.....	8·5	9·0	8·8	10·0	Cloudy day, S. gale 1·35 p.m., thunder 2·5 p.m., and lightning 2·9 p.m., heavy showers afternoon and evening up to midnight.
12	1·884	0·044	4·0	5·0	4·5	6·7	Cloudy, forenoon and afternoon until 4·30 p.m., evening fine and clear, heavy dew fell in the night. Meteor observed at 7·10 p.m.
13	0·015	0·109	3·0	5·5	4·3	0·3	Fine day, cloudy at 10·30 a.m., and 1 p.m., and cleared again shortly after, dew falling in night, W. horizon hazy.
14	·0	0·124	3·0	5·5	4·3	5·0	Fine all day, showers in the evening.
15	0·098	0·108	3·5	5·5	4·5	5·0	Fine in forenoon and afternoon, morning and evening cloudy, partial rainbow, S.E., at 6·10 p.m., clouds cleared at 7 p.m. Meteor observed at 7·57 p.m.
16	·0	0·051	...	...	2·3	9·0	Cloudy forenoon, afternoon and evening fine, heavy dew fell during night.
17	0·003	0·056	4·0	4·5	4·3	0·0	Fine day, dense fog at daylight, cleared by 7 30 a.m., heavy dew during night.
18	0·003	0·058	3·5	4·5	4·0	0·3	Fine day, heavy dew during night.
19	0·002	0·104	3·0	3·5	3·3	0·3	Fine day, evening clear. Meteor observed at 10·20 p.m.
20	·0	0·198	3·0	5·5	4·3	4·7	Cloudy in morning, and remainder of day fine, excepting at a little after 8 p.m. the clouds spread all over and dispersed again as quickly as they formed.
21	0·102	0·053	5·0	5·0	5·0	9·7	Cloudy day, light rain at 9·50 a.m., also a shower at at 5·25 p.m.
22	0·021	0·076	3·5	5·0	4·3	0·3	Fine day and clear, dew fell in night. Two meteors observed, one at 8·35 p.m. and the other at 8·36 p.m.
23	0·002	0 068	...	...	2·0	0·0	Fine all forenoon and evening, cloudy in the afternoon with light cirrus clouds. Meteor observed at 9·20 p.m.
24	0·001	0·064	...	...	1·8	8·0	Cloudy day until evening, when clouds cleared. Aurora Australis seen from 9·7 p.m. until 9·20 p.m.
25	0·001	0·030	4·0	4·5	4·3	7·0	Cloudy day until evening. Two meteors observed, one at 9·18 p.m., and the other at 10·32 p.m. Lightning S. at 10·17 p.m.
26	0·005	.....	4·0	4·5	4·3	5·0	Fine in morning, and cloudy from 9·30 a.m. until evening, evening cloudy and fine alternately. Meteor observed S. at 8·45 p.m.
27	2·347	.....	4·5	5·0	4·8	9·0	Cloudy all day, heavy rain began at 12·15 a.m., raining heavily all morning, and heavy showers during the rest of the day, between 9 a.m. and 10 a.m. clouds were blowing about in all directions.
28	1·800	.....	6·5	10·0	8·3	10·0	Cloudy day, heavy showers at short intervals during day.
29	2·964	.....	8·0	5·5	6·8	9·7	Cloudy and raining nearly the whole day, clouds were broken to E. at 8·45 p.m., as if clearing off, lightning E. and S.S.E. at 9 p.m.
30	2·956	.....	...	...	5·0	10·0	Cloudy day, showery during the day and night, thunder E. at 9·47 a.m., thunder and lightning at 5·10 a.m., and lunar halo at 9 p.m.
	Sum.	Sum.					
Means	12·539	2·215	4·0	5·3	4·2	5·0	

Cloudy sky taken at 9 a.m., 3 p.m., and 9 p.m. Amount of Rain and Evaporation recorded at 9 a.m., for the previous 24 hours
Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.
Heavy dew on the 17th, 18th, 19th, 23rd, 24th, 25th, and 26th.

Date.	Self-registering Barometer.					Self-registering Anemometer.																					
	Mean at 32°.	Max.	Hour.	Min.	Hour.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure. lbs.	Greatest Pressure. Direction of Wind. Time.		
1	29·888	29·915	9 a.m.	29·845	2 & 3 p.m.	5	2	4	5	...	...	...	...	...	...	...	...	...	...	1	7	299	12·5	0·8	1·8	S.S.E.	8·40 p.m.
2	·869	·915	9 a.m.	·835	4 p.m.	10	...	...	...	5	7	...	...	...	...	...	...	...	...	...	2	280	11·7	0·7	3·4	S.	1·45 p.m.
3	·887	·920	9 & 10 a.m.	·870	3&7p.m., 2&3a.m	8	...	2	2	6	2	...	...	...	...	...	...	...	...	...	4	295	12·3	0·7	3·1	S.	2·50 p.m.
4	·826	·880	9 a.m.	·800	3&4p.m., 4&5a.m	7	2	4	8	2	...	...	...	...	...	...	...	...	...	...	1	342	14·3	1·0	3·4	S.	1·55 p.m.
5	·836	·885	8 a.m.	·800	4 p.m.	5	4	...	...	9	3	...	...	...	...	...	...	...	...	...	3	300	12·5	0·8	3·6	S.	1·45 p.m.
6	·854	·890	10 p.m. & 8a.m	·810	3 p.m.	2	2	...	1	9	3	...	...	...	...	...	...	...	...	5	2	164	6·8	0·2	1·1	S.E.	2·20 p.m.
7	·827	·895	9 a.m.	·795	3 & 4 p.m.	...	...	2	...	6	7	...	...	...	...	...	...	9	...	...	...	165	6·9	0·2	1·3	E.	3·15 p.m.
8	·848	·925	8 a.m.	·765	3 & 4 p.m.	4	3	...	...	6	7	...	...	1	...	...	...	3	...	...	...	179	7·5	0·3	2·4	S.	5·15 p.m.
9	·915	·955	9 p.m.	·875	2 p.m.	3	2	...	2	3	7	...	...	...	...	...	3	1	1	1	1	142	5·9	0·2	0·7	S.E.	3·40 p.m.
10	·772	·925	9 a.m.	·665	4 a.m.	...	...	1	1	...	2	3	2	3	4	1	2	5	...	...	...	251	10·5	0·6	2·4	N.	11·45 p.m.
11	·829	·910	10 p.m.	·730	12 a.m. & 1p.m.	9	3	1	2	7	...	1	...	...	...	...	...	...	...	...	1	326	13·6	0·9	7·6	S.	4·10 p.m.
12	·7?3	·875	9 & 10 a.m.	·620	4 & 5 a.m.	6	2	...	...	2	4	3	3	...	...	...	...	...	1	2	1	158	6·6	0·2	2·0	S.	11· 0 a.m.
13	·799	·920	8 a.m.	·700	1 p.m.	3	1	1	5	6	4	...	...	...	...	...	...	...	1	1	2	254	10·6	0·6	3·9	S.W.	11·45 a.m.
14	30·022	30·130	8 a.m.	·920	1 p.m.	10	2	1	1	5	...	...	...	...	...	...	...	...	...	...	5	327	13·6	0·9	2·4	S.	12·55 p.m.
15	·118	·160	9 a.m.	30·100	3,4,5,&6p.m., 2,3,4, & 5 a.m.	8	1	1	1	6	4	...	...	...	...	...	...	...	...	...	3	273	11·4	0·6	4·2	S.	11· 5 a.m.
16	·073	·130	9 & 10 a.m.	·025	2, 3, & 4 a.m.	...	1	...	2	10	3	1	...	...	1	...	1	5	...	...	...	125	5·2	0·1	0·6	W.	7·30 a.m.
17	·058	·110	8 a.m.	·010	2 & 3 p.m.	...	...	...	...	10	...	2	1	4	3	3	1	...	...	...	...	158	6·6	0·2	0·6	N.N.E.	6· 0 p.m.
18	·044	·105	9 a.m.	·005	4 & 5 p.m.	...	...	...	...	10	3	...	...	2	3	5	1	...	...	...	...	177	7·4	0·3	1·8	E.N.E.	1·35 p.m.
19	29·942	·065	9 a.m.	29·875	3 a.m.	...	...	2	1	3	1	...	3	4	7	3	...	...	...	...	...	320	13·3	0·9	5·4	N.	9·40 p.m.
20	30·106	·215	8 a.m.	·995	9 a.m.	8	1	2	1	1	1	...	...	...	...	...	...	...	...	6	4	327	13·6	0·9	3·1	S.	12· 3 p.m.
21	·119	·220	9 & 10 a.m.	30·050	5 & 6 a.m.	7	5	3	1	4	3	...	...	...	...	...	...	...	...	...	1	246	10·3	0·5	2·2	S.S.W.	9·50 a.m.
22	29·948	·065	9 a.m.	29·895	3 & 4 a.m.	...	...	...	2	4	5	...	1	7	2	...	...	...	...	...	...	185	7·7	0·3	2·0	N.	9·55 p.m.
23	·876	29·925	8 & 9 a.m.	·835	2 & 3 p.m.	...	...	1	4	5	1	1	1	7	2	2	...	...	...	...	...	171	7·1	0·3	2·0	N.	8·40 p.m.
24	·868	·940	9 a.m.	·830	4 & 5 a.m.	...	...	...	3	1	2	5	1	6	...	5	1	...	...	...	...	199	8·3	0·4	2·0	N.	9· 0 p.m.
25	·863	·920	8 a.m.	·805	2 p.m.	...	...	1	3	7	2	...	...	4	2	3	1	1	...	...	...	140	5·8	0·2	1·4	N.N.E.	4·30 p.m.
26	·913	·965	9 & 10 a.m.	·875	3 p.m.	3	2	...	1	6	2	...	...	...	...	1	...	...	...	2	7	178	7·4	0·3	0·7	S.S.E.	2·40 p.m.
27	·854	·910	9 a.m.	·830	4 & 6 p.m.	5	5	2	2	2	2	...	...	4	...	...	...	1	1	...	...	105	4·4	0·1	2·4	W.	9·20 a.m.
28	·597	·730	9 a.m.	·515	3 a.m.	...	...	...	...	...	...	...	...	...	...	...	...	4	12	6	2	558	23·2	2·7	11·0	E.S.E.	2·50 a.m.
29	·612	·655	11 a.m.	·585	4 p.m.	2	...	...	2	1	3	1	...	...	1	...	1	...	5	2	6	339	14·1	1·0	6·5	S.E.	6·15 p.m.
30	·569	·675	9 a.m.	·475	5 a.m.	3	...	...	...	3	1	...	...	...	...	...	1	6	9	...	1	469	19·5	1·9	8·8	E.	7·35 p.m.
								...			...	...				...											
Sums or Means.	29·882	April 21st. 30·220	9 & 10 a.m.	April 30th. 29·475	5 a.m.	108	38	28	50	139	79	17	12	42	25	23	12	35	30	26	53	7452	Mean. 10·4	Mean. 0·6			

The first sixteen columns indicate the number of times out of twenty-four when the wind was blowing in the several directions.

Pressure in lbs. per square foot, deduced from the Formula, $P = v^2 \times \cdot 005$. The self-registering Barometer is a photographic one. The velocity of wind is recorded by a set of Dr. Robinson's cups.

ABSTRACT FROM METEOROLOGICAL STATIONS, FOR THE MONTH OF APRIL, 1871.

Stations.	Distance from Coast in miles.	Height above sea in feet.	Mean of Observations taken at 9 a.m., April, 1871.					Mean.	Mean.	For 24h. previous to 9 a.m.					Remarks,
			Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind. Direction.	Wind. Force. 0·6	Max.	Min.	Rain. Total Fall, inches.	Rain. No. of Days.	Rain. Greatest Fall, inches.	Rain. Date.	Evaporation in inches.	
Tenterfield	85	.....	.....	.....	.....	E.S.E.	1·7	.....	.....	5·090	12	1·570	27	4·831	
Fort Bourke	492	.....	.....	67·5	.....	S.	1·5	77·3	57·7	0·070	1	0·070	28	.....	Observations commenced on 25th.
Narrabri	182	.....	.....	68·5	.....	S.W.	1·2	.....	.....	3·200	5	1·730	27	3·830	
Port Macquarie	0	.....	.....	65·2	.....	S.W.	1·8	73·2	57·2	6·535	14	1·460	28	3·546	
Murrurundi	113	1050	.....	58·1	.....	N.W.	1·3	66·4	49·8	4·280	8	2·090	12	3·168	
Cassilis	140	.....	.....	.....	.....	E.	0·8	.....	45·4	1·810	4	0·720	30	4·226	
Dubbo	230	.....	.....	.....	.....	N.E.	0·6	73·0	.....	0·570	3	0·280	12	3·798	
Muswellbrook	96	.....	.....	65·8	.....	N.	0·4	77·3	54·2	0·400	1	0·400	27	3·472	
Mudgee	120	.....	.....	58·5	.....	E.	2·0	67·3	49·7	0·680	3	0·400	29	0·749	Observations from 22nd instant.
Newcastle	1	112	30·109	65·6	82	N.W.	0·1	72·8	58·3	11·540	13	3·110	30	.....	
Hexham	8	.....	.....	63·3	.....	W.	1·0	71·2	55·1	8·560	11	2·810	29	2·035	
Orange	132	2891	.....	56·4	.....	E.N.E.	0·6	64·6	48·2	0·880	5	0·470	12	2·140	Hard frost on 3rd.
Bathurst	100	2333	.....	57·1	76	S.E.	1·4	73·9	40·2	1·740	4	0·670	29	.....	
Kurrajong	35	1870	.....	56·6	.....	S.E.	...	63·2	50·0	15·350	8	7·750	28	.....	Tempestuous weather, 28th.
Parramatta	16	.....	.....	63·4	.....	S.W.	1·4	71·3	55·4	11·840	7	5·910	29	2·430	Brilliant meteor, 23rd.
Double Bay	3	.....	.....	.....	.....	.....	...	.....	.....	11·640	11	3·780	30	.....	
Sydney	5	155	30·169	63·9	81·1	W.	0·6	70·6	57·2	12·539	12	2·964	29	2·215	Aurora on the 24th.
Liverpool	16	.....	.....	.....	.....	.....	...	.....	.....	11·080	6	6·230	29	.....	
Wentworth	520	.....	.....	.....	.....	E.	0·1	60·5	.....	0·830	1	0·830	11	4·161	
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	5·240	4	3·750	29	.....	
Wollongong	0	.....	.....	64·8	.....	S.W.	1·8	70·7	58·8	8·240	4	4·180	29	3·274	
Moss Vale	31	.....	.....	53·0	.....	S.	0·7	59·5	46·6	6·160	5	3·150	29	.....	
Goulburn	57	2129	30·219	56·1	75	W.	0·1	71·2	40·9	1·420	3	0·920	29	2·119	
Wagga Wagga	164	.....	.....	.....	.....	N.W.	1·2	.....	46·9	0·100	1	0·100	25	1·619	Observations from 14th instant.
Cape St. George	0	175	30·088	62·9	96	S.	1·5	69·3	56·4	9·116	10	4·015	30	.....	Aurora, 25th.
Queanbeyan	63	.....	.....	51·4	.....	E.	0·0	57·4	45·4	1·380	4	1·160	30	3·330	
Deniliquin	278	410	30·265	65·3	75	S.W.	1·3	80·0	50·7	0·660	1	0·660	11	.....	
Kiandra	84	4640	30·234	46·1	71	N.W.&S.E.	0·0	60·5	31·6	3·470	8	1·240	30	.....	
Cooma	47	.....	.....	54·1	.....	S.	1·8	70·3	37·8	0·350	2	0·270	11	2·810	Frosty about end of month.
Albury	163	572	.....	.....	.....	N.W.	...	.....	.....	1·090	3	0·680	11	3·092	
Eden	0	107	30·069	61·5	83	S.	1·1	68·4	54·5	2·540	7	1·720	30	.....	Aurora, 25th.

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES

1871 — **APRIL**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Barometer
Scale
1 Div. to 1 (inches)
30·5
30·0
29·5

Wind
Scale of Force
1 Div. to 1 (lbs.)
N.
E.
S.
W.
N.
10

Ozone
Scale
1 Div. to a Degree
0

Temperature
Scale
1 Div. to 2°
70
60

Humidity
Scale
1 Div. to 5 Degrees
100

Rain
Scale
1 Div. to 1 (inches)
0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

The dark vertical lines represent Force of Wind & Rain.

Dew on the 17th 18th 19th 23rd 24th 25th and 26th

Lithographed at the Surveyor Generals Office, Sydney, May 1871.

Force of Wind on 28th 2·7 lbs.

METEOROLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORY, SYDNEY,

AND AN

ABSTRACT FROM THE COUNTRY STATIONS,

FOR THE

MONTH OF MAY, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1871.

[*Price, 6d.*] 3*u* 31—71

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY.

LATITUDE 33° 51′ 41″ LONGITUDE 10h 4m 46s

Magnetic Variation 9° 34′ 35″ East.

MAY, 1871.

GENERAL ABSTRACT.

BAROMETER .. At 32°	Highest Reading	30·115	... On the 18th, at 9 a.m.
	Lowest Reading	29·400	... On the 29th, at 5 a.m.
	Mean Height	29·770	

(Being 0·190 inches less than that in the same month on an average of the preceding 12 years.)

WIND	Greatest Pressure... ...	19·8 lbs.	... On the 26th.
	Mean Pressure	0·6 lbs.	
	Number of Days Calm ...	0	
	Prevailing Direction ...	W.	

(Prevailing direction during the same month for the preceding 12 years ... W.)

TEMPERATURE	Highest in the Shade ...	74·1	... On the 2nd.
	Lowest in the Shade ...	44·6	... On the 31st.
	Greatest Range	17·3	... On the 31st.
	Highest in the Sun ...	114·6	... On the 10th.
	Highest in a Black Box with Glass Top	153·0	... On the 2nd.
	Lowest on the Grass ...	40·8	... On the 31st.
	Mean Diurnal Range ...	11·5	
	Mean in the Shade ...	59·5	

(Being 1·1 greater than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..	Greatest Amount... ...	100·0	... On the 8th, 9th, 18th, 19th, 20th, 22nd, 25th, 26th, & 27th.
	Least	46·0	... On the 30th.
	Mean	85·1	

(Being 10·9 greater than that of the same month on an average of the preceding 12 years.)

RAIN	Greatest Fall	1·796 inches.	On the 22nd.
	Number of Days	22	
	Total Fall	7·391 inches.	65 ft. above the ground.
		10·113 inches.	15 inches above the ground.

(Being 6·390 inches greater than that of the same month on an average of the preceding

EVAPORATION	Total Amount	1·304 inches.
OZONE	Mean Amount	4·5

(Being 0·1 greater than that in the same month on an average of the preceding 11 years.)

ELECTRICITY ..	Number of Days Lightning ...	5
CLOUDY SKY ..	Mean Amount	6·4
	Number of Clear Days	1
METEORS ..	Number Observed	4

REMARKS.

The weather during the month was generally wet, rain having been measured on 22 days. The amount exceeded half an inch on only 9 days.

The floods and rain noted at the end of April ceased early in May, and westerly wind became prevalent. Heavy rain fell on the 9th in the Northern Districts, and on the same day the river was flooded at Murrurundi. On 22nd there was partial flood at Goulburn, and at Araluen the creeks were all flooded. The Aurora was seen at Eden on 22nd, and at Cape George on 24th. On 26th the Barometer fell 0·180 from 9 a.m. to noon, and at 11·30 a.m. the wind, which had been S., suddenly increased, veered gradually to N.E., and attained its greatest velocity, 63 miles per hour, at noon. At 11·45 it was N.E., and remained between N.E. and E.N.E. all the afternoon without rain.

SYDNEY, MAY, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level.	Wind.		Temperature.									Humidity 0-100.
					Dry.	Wet.	Shade.				Sun.	Grass.	Sea Water. 9 a.m.	
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.		Mean 9.3.9.
1		29·738	W.	273	66·1	65·0	69·4	62·7	6·7	66·1	110·0	61·1	66·8	93·3
2		·752	W.	287	67·5	63·7	74·1	61·5	12·6	67·8	109·8	57·4	67·0	79·7
3	In Equat.	·867	W	119	63·8	57·8	72·2	57·6	14·6	64·9	111·7	51·1	66·8	69·0
4		·977	W.	210	62·6	57·2	69·4	52·9	16·5	61·2	104·8	49·3	66·6	70·7
5	Full.	30·048	W.	190	59·5	56·3	65·2	51·3	13·9	58·3	104·0	47·8	66·4	81·0
6	Perigee.	·103	N.	134	60·4	58·4	66·6	51·0	15·6	58·8	108·6	47·6	66·2	87·0
7		·029	W.N.W.	106	59·8	59·4	62·6	55·5	7·1	59·1	75·5	54·6	66·6	97·0
8		29·929	E.	149	65·0	63·9	71·5	58·5	13·0	65·0	108·3	55·8	66·4	93·0
9	G.S. Dec.	·884	W.	318	61·9	61·3	65·3	61·1	4·2	63·2	85·2	57·8	66·0	96·0
10		·825	W.	345	61·4	57·9	69·5	58·8	10·7	64·2	114·6	54·5	66·2	79·0
11		·860	W.S.W.	397	60·8	56·2	67·1	53·4	13·7	60·3	104·6	50·0	66·0	73·0
12	Last Qr.	·953	S.S.W.	366	58·1	54·2	63·7	54·0	9·7	58·9	96·7	57·8	66·2	76·7
13		30·020	W.	239	56·7	53·6	62·9	48·9	14·0	55·9	98·0	45·1	66·0	80·7
14		·036	W.	100	52·1	50·5	64·0	48·4	15·6	56·2	105·8	44·8	65·8	88·0
15		·128	W.	131	56·5	54·7	62·2	51·6	10·6	56·9	98·5	49·6	66·0	88·0
16	In Equat.	·268	W.	124	54·7	53·4	64·6	48·9	15·7	56·8	108·0	45·1	65·6	91·0
17		·326	W.	125	56·4	53·7	64·4	48·6	15·8	56·5	102·8	45·2	65·8	83·7
18		·394	W.	96	57·7	56·1	65·9	49·5	16·4	57·7	103·2	46·1	66·0	90·0
19	New.	·391	W.	89	57·9	57·8	63·2	52·4	10·8	57·8	96·9	51·4	65·8	99·3
20		·283	S.	344	59·5	59·1	65·0	55·0	10·0	60·0	93·8	53·1	65·6	97·0
21	Apogee.	·177	E.	234	64·5	62·6	65·6	57·5	8·1	61·6	94·3	55·2	65·6	88·0
22		·243	W.N.W.	100	60·5	59·4	66·9	54·9	12·0	60·9	106·1	51·6	65·4	93·3
23	G.N. Dec.	·305	W.	241	56·3	54·9	58·9	53·9	5·0	56·4	68·0	50·9	65·6	90·0
24		·234	W.	248	57·5	56·8	62·1	52·9	9·2	57·5	102·9	50·1	65·4	95·0
25		·126	E.S.E.	293	59·5	58·4	62·0	54·3	7·7	58·2	66·9	52·6	65·4	92·7
26		29·975	N.E.	194	58·9	58·0	64·9	57·3	7·6	61·1	98·0	54·1	65·6	94·0
27	First Qr.	·840	W.	225	58·0	57·5	62·5	52·3	10·2	57·4	89·6	49·3	65·4	96·7
28		·789	W.	393	58·8	55·0	65·4	54·0	11·4	59·7	102·1	51·0	65·6	76·0
29		·874	W.	421	58·8	51·6	64·4	50·5	13·9	57·5	102·0	45·8	65·4	61·3
30	In Equat.	·787	W.	505	52·9	46·4	58·5	50·8	7·7	54·7	94·7	48·6	65·2	62·7
31		·243	W.	226	55·1	51·3	61·9	44·6	17·3	53·3	97·7	40·8	64·6	76·7
				Sum.										
Means	.....	30·013	W.	7222	59·3	56·8	65·2	53·7	11·5	59·5	98·8	50·8	65·9	85·1

Observations of Standard Barometer taken at 9 a.m. Barometer corrected to 32° Fah. and Mean Sea Level. The Barometer at 9 a.m. reads 0·022 above the true mean for the day.

SYDNEY, MAY, 1871.

Date.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
1	1·380	0·024	5·0	4·5	4·8	10·0	Showery; at 7 p.m. clouds were broken and appeared to be clearing, overcast again at 8 p.m.
2	0·105	0·078	3·5	5·0	4·3	5·0	Cloudy forenoon; afternoon fine, until after 5 p.m., when it became cloudy; clearing again at 8·15 p.m.
3	·0	0·070	2·0	4·0	3·0	0·7	Fine until about 6 p.m.; then cloudy until 8 p.m., when clouds cleared off. Heavy dew fell during night.
4	0·004	0·064	3·5	4·5	4·0	9·7	Cloudy. Lightning S.S.W., S., S.E., and E. all evening, commencing 4·55 p.m. Thunder and lightning W. at 10·30 p.m. S.W. squall and rain at 9 p.m.
5	0·001	0·031	3·0	5·0	4·0	1·0	Fine all day, excepting from 9·45 a.m. until 12·30 p.m.; evening calm and bright; bank of clouds above horizon from S. to N.E.; dew falling.
6	0·004	0·039	4·0	5·5	4·8	6·0	Fine until 2·30 p.m., the remainder of day cloudy; drops of rain 7·20 p.m., heavy dew during night.
7	0·003	.....	...	...	2·5	10·0	Raining in forenoon, commencing 9·45 a.m.; afternoon showery; dull in the evening.
8	0·053	0·051	4·0	5·0	4·5	10·0	Dropping rain from 9 a.m. to 9·45 a.m. Lightning S., S.W., W., and S.E. all evening. Thunderstorm from 9 p.m. until 10·15 p.m.
9	0·700	0·051	5·5	5·5	5·5	10·0	Raining heavily in morning at 9 a.m.; light showers the remainder of day until 6 p.m.; fine at 7 p.m., and cloudy again at 7·30 p.m.
10	0·656	0·076	4·5	5·0	4·8	10·0	Light rain at 9 a.m. and 9 p.m., shower at 5 p.m. Rainbows S.W. at 8·55 a.m. S.E. at 1·45 p.m., and partial S.S.E. 3 p.m.
11	0·012	0·082	3·0	5·5	4·3	7·3	Fine until 1·30 p.m.; afternoon cloudy until 6 p.m.; then fine until 8 p.m., afterwards cloudy.
12	·0	0·071	3·5	5·0	4·3	5·7	Cloudy until evening. Evening fine, stratus clouds along the coast on the horizon.
13	·0	0·058	4·0	5·5	4·8	1·7	At 9·45 a.m. the clouds formed and disappeared again. In the evening, bank of clouds E. Three meteors observed—1st, at 7·20 p.m., S.S.W.; 2nd, at 7·30 p.m., N.; and 3rd, at 9·45 p.m., E.
14	0·002	0·027	...	...	2·8	1·0	Fine all morning and cool; bank of clouds to E. almost stationary with very little alteration during the night; at 9 p.m. nearly overcast.
15	0·002	0·028	4·0	5·0	4·5	7·0	Cloudy until 6 p.m. Partial rainbow, SS.E. from 3·45 p.m. to 4·53 p.m.; shower of rain at 7 p.m.; evening cloudy and fine alternately.
16	0·061	0·042	4·0	5·0	4·5	4·3	Cloudy morning, remainder of day fine; dropping rain at 1·40 p.m. and heavy shower at 2·5 p.m.; rainbow S.E. 2·30 p.m.; heavy dew in the night.
17	0·030	0·030	2·0	5·0	3·5	1·3	Fine all day, clouds N. and W. in forenoon; in the evening the W. horizon hazy, heavy dew falling.
18	0·002	0·036	4·0	4·5	4·3	9·7	Cloudy Rainbows visible at 12·30 p.m. S. and 3 p.m. S.E., and partial rainbows S.S.E. at 2·40 p.m. and 3·45 p.m.; shower at 4 p.m.; evening showery. Lightning S.E. and S. all evening, from 7·12 p.m.
19	0·942	.....	4·0	5·0	4·5	9·3	Showery; rainbow S.W. at 9·5 a.m.
20	0·401	0·038	5·5	8·5	7·0	10·0	Cloudy. In the morning light rain falling, and light showers the remainder of day; rainbow S.W. 9·30 a.m.
21	0·260	.....	...	...	4·5	6·0	Cloudy morning, very heavy showers in quick succession from 10·5 a.m. until about noon; afternoon and evening cloudy and fine alternately.
22	1·796	0·010	5·0	4·0	4·5	1·7	Fine, with some heavy cumulus clouds about in the afternoon. Lightning S.W. and E. all evening and foggy. Meteor observed N.E. at 8·40 p.m.
23	0·010	0·034	5·0	5·5	5·3	9·7	Cloudy and dull, like rain to W., dropping rain at 11.55 a.m; some breaks in the clouds to E. at 9 p.m. Rained during night.
24	0·043	.....	5·5	7·0	6·3	9·7	Clouds coming from S., upper clouds stationary. Rainbow S.E. 4·45 p.m. Evening showery from 4·55 p.m. Lightning N.E. all evening.
25	1·367	.....	6·5	8·5	7·5	10·0	Steady rain all morning and forenoon, from 4·30 a.m.; light rain occasionally during the afternoon and evening. Rained all night.
26	1·250	.....	6·5	5·0	5·8	6·3	Cloudy until 1 p.m., remainder of day fine. In the morning steady rain until 11·30 a.m., S. gale followed, and clouds cleared off; at 9 p.m. W. horizon hazy. Rained during night.
27	0·395	0·002	4·5	5·5	5·0	10·0	Forenoon raining, afternoon and evening showery. Some of the showers in the evening were very heavy, but only lasted a few minutes.
28	0·602	0·084	...	...	2·3	0·0	Fine and warm until 9 p.m., when clouds came in from the W. and soon spread all over.
29	·0	0·114	3·0	5·0	4·0	4·0	Fine. At 1 p.m. looked as if a storm was coming in from S.E., clouds spread, and passed off again. Evening cloudy with lunar halo.
30	0·002	0·108	3·5	4·5	4·0	4·3	Cloudy morning. Rained at 8·50 a.m. lightly, fine remainder of day; gale from S.S.W. at 12·23 p.m.; in evening stars badly defined.
31	0·010	0·056	3·5	4.5	4·0	6·3	Cloudy and cold in morning, evening cloudy and fine alternately after 5 p.m. Forenoon and afternoon fine and cool. Lunar halo at 7 p.m.
	Sum.	Sum.					
Means	10·113	1·304	4·1	5·3	4·5	6·4	

Cloudy sky taken at 9 a.m., 3 p.m., and 9 p.m. Amount of Rain and Evaporation recorded at 9 a.m., for the previous 24 hours.
Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.
Heavy dew on the 4th, 6th, 14th, 15th, and 18th.

Date.	Self-registering Barometer at 32°.					Self-registering Anemometer.																			
	Mean	Max.	Hour.	Min.	Hour.	N.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure lbs.	Greatest Pressure, Direction of Wind, Time.		
1	29·196	29·525	8 p.m.	29·175	2,3,& 4a.m.	1	1	...	1	19	...	...	...	...	...	2	3	5	1	...	...	273	11·4	0·6	3·9	E.	10·5 a.m.
2	·542	·630	8 a.m.	·465	3 p.m.	...	3	1	5	12	3	...	...	...	...	...	...	...	...	...	...	287	12·0	0·7	4·2	W.	2·40 p.m.
3	·657	·730	8 a.m.	·585	2 p.m.	1	1	1	2	10	4	...	...	...	...	...	...	...	...	2	3	119	5·0	0·1	0·7	S.	2·25 p.m.
4	·703	·795	8 a.m.	·625	4 p.m.	3	2	3	1	11	1	1	2	...	...	...	...	...	...	...	...	210	8·8	0·4	9·2	S.	9· 5 p.m.
5	·796	·830	8 a.m.	·755	4 p.m.	6	4	...	...	11	2	...	...	...	...	...	...	...	...	...	1	190	7·9	0·3	1·4	S.	2· 0 p.m.
6	·782	·850	9 a.m.	·760	5 a.m.	...	...	...	1	3	7	...	...	9	3	...	...	1	...	...	...	134	5·6	0·2	08	N.N.E.	3·40 p.m.
7	·712	·775	10 a.m.	·675	3 & 4 a.m.	...	...	...	...	1	11	3	3	6	...	...	...	...	...	...	...	106	4·4	0·1	0·7	W.	7·25 a.m.
8	·615	·700	9& 10 a.m.	·610	2 & 4 p.m.	2	3	..	3	4	2	2	...	1	1	...	2	4	...	...	..	103	6·2	0·2	1·3	S.	10·25 p.m.
9	·568	·655	9 a.m.	·520	5 p.m.	1	1	4	...	14	3	1	...	...	...	...	...	...	...	...	...	318	13·3	0·9	4·2	W.S.W.	5· 0 p.m.
10	·595	·630	9 p.m.	·535	1 p.m.	1	2	3	7	11	...	...	...	...	...	...	...	...	...	...	...	345	14·4	1·0	3·1	S.S.W.	3·45 p.m.
11	·635	·700	8 a.m.	·575	2 p.m.	...	4	5	12	3	...	...	...	...	...	...	...	...	...	...	...	397	16·5	1·4	3·6	W.S.W.	11·30 a.m.
12	·721	·765	8 a.m.	·675	2 p.m.	2	7	1	7	7	...	...	...	...	...	...	...	...	...	...	...	366	15·3	1·2	5·8	S.	1·40 p.m.
13	·741	·770	8 & 9 a.m., 10 p.m.	·700	2, 3, & 4 p.m.	5	4	...	...	10	4	...	...	...	...	...	...	...	...	...	1	239	10·0	0·5	1·4	S.S.W.	10·25 a.m.
14	·766	·835	8 a.m.	·710	4 p.m.	...	1	1	...	12	4	...	...	...	...	...	...	...	...	5	1	100	4·2	0·1	0·4	W.	9·30 a.m.
15	·897	·995	8 a.m.	·830	1, 2, & 3 p.m.	2	1	...	...	13	3	...	...	...	...	...	...	...	...	2	3	131	5·5	0·2	0·6	W.	6· 0 a.m.
16	·985	30·035	8 a.m.	·930	3 & 4 p.m.	1	...	1	...	13	3	...	...	...	...	...	...	...	5	...	1	124	5·2	0·1	0·7	S.	2· 0 p.m.
17	30·029	·090	8 a.m.	·980	2 & 3 p.m.	...	...	...	...	13	2	...	1	2	6	...	...	...	...	...	...	125	5·2	0·1	0·7	W.	7·50 a.m.
18	·082	·115	9 a.m.	30·040	3 p.m.	...	...	...	...	13	2	3	...	4	...	...	...	...	...	2	...	96	4·0	0·1	0·5	W.	9·45 a.m.
19	·035	·105	9& 10 a.m.	29·990	6 a.m.	1	...	1	...	13	2	...	...	...	...	...	1	4	..	2	...	89	3·7	0·1	0·2	E.	2·20 p.m.
20	29·925	·015	9 a.m.	·880	5 a.m.	7	2	2	...	2	...	...	...	...	...	1	...	4	1	4	1	344	14·3	1·0	13·0	S.E.	5· 2 a.m.
21	·919	29·975	8 a.m.	·895	5 p.m.	...	...	...	...	4	6	...	...	...	...	2	3	7	2	..	...	234	9·8	0·5	2·9	E.	9·58 a.m.
22	·984	30·020	8 a.m.	·940	2 p.m.	...	...	...	...	6	8	...	1	2	...	...	7	...	...	...	...	100	4·2	0·1	0·6	W.	6·35 a.m.
23	·996	·060	10 a.m.	·930	4 a.m.	...	...	2	...	21	1	...	1	...	...	...	...	...	...	...	...	241	10·0	0·5	3·4	W.	10·30 a.m.
24	·876	29·970	10 & 11 a.m.	·805	5 a.m.	3	2	5	3	6	3	...	1	...	...	...	...	...	1	...	1	248	10·3	0·5	3·4	S.W.	7·35 p.m.
25	·790	·870	9 a.m.	·700	7 a.m.	1	...	...	...	...	...	...	...	...	...	...	1	4	12	6	...	293	12·2	0·7	3·4	E.S.E.	11·30 p.m.
26	·623	·720	9 a.m.	·500	12 a.m.	2	...	...	1	6	...	...	...	2	...	9	3	...	1	...	...	194	8·1	0·3	19·8	E.	12· 0 p.m.
27	·512	·600	9 a.m.	·485	3 p.m., 3 & 4 a.m.	...	...	1	4	18	1	...	...	...	...	...	...	...	...	...	...	225	9·4	0·4	4·8	W.S.W.	10·40 p.m.
28	·597	·655	11 p.m.	·510	1 p.m.	...	...	...	7	9	7	1	...	...	...	...	...	...	...	...	...	393	16·4	1·3	4·8	W.S.W.	9·55 a.m.
29	·507	·625	9 a.m.	·400	5 a.m.	...	...	1	5	12	5	1	...	...	...	...	...	...	...	...	...	421	17·6	1·5	9·7	W.S.W.	2·47 a.m.
30	·762	·935	8 a.m.	·530	9 a.m.	...	5	5	5	8	...	...	...	...	...	...	...	...	...	...	1	505	21·1	2·2	9·2	S.S.E.	9· 5 a.m.
31	·997	30·080	8 a.m.	·930	1 p.m.	5	3	...	2	14	...	...	...	...	...	...	...	...	...	...	...	226	9·4	0·4	2·2	W.	9· 5 a.m.
Sums or Means.	29·770	May 18th. 30·115	9 a.m.	May 29th. 29·400	5 a.m.	44	46	37	66	290	84	12	7	26	10	14	20	29	23	23	13	7222	Mean. 9·7	Mean. 0·6			

The self-registering Barometer is photographic, and the Anemometer, mechanical. A set of Robinson's Cups record the velocity from which the pressure in lbs. per square foot, is obtained by the Formula P = v² M 1005. The direction of wind is taken at every hour.

Stations.	Distance from Coast in miles.	Height above sea in feet.	Mean of Observations taken at 9 a.m., May, 1871.					Mean. Max.	Mean. Min.	For 24h. previous to 9 a.m.				Evaporation in inches.	Remarks.
			Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind. Direction.	Wind. Force. 0·6			Rain. Total Fall, inches.	Rain. No. of Days.	Rain. Greatest Fall, inches.	Rain. Date.		
Tenterfield	85	.....	.....	.....	.....	W.	1·5	.....	.....	1·530	8	0·540	9	3·239	
Bourke	492	.....	.....	.....	.....	S.W.	...	70·1	.....	1·258	6	1·045	9	.....	
Narrabri	182	.....	.....	60·4	.....	S.E.	1·0	.....	.....	3·190	8	0·830	9	2·767	Storms, 7th, 8th, and 24th.
Armidale	82	3278	30·185	51·2	87	E.	1·7	59·4	43·0	.....	3	.....	...	.....	No rain-gauge.
Port Macquarie	0	.....	.....	61·7	.....	S.W.	1·7	70·1	53·2	6·195	16	1·940	19	4·745	
Murrurundi	113	1050	.....	54·3	.....	N.W.	1·6	60·3	48·3	4·590	14	1·330	9	2·467	River flooded on 9th.
Cassilis	140	.....	.....	.....	.....	S.E.	0·7	.....	43·2	4·620	14	1·770	9	6·096	Ice, and heavy frost on 21st.
Dubbo	230	.....	.....	.....	.....	N.E.	0·8	66·1	.....	1·630	8	0·900	9	2·873	
Muswellbrook	96	.....	.....	59·5	.....	N.W.	0·9	67·1	51·8	4·750	7	1·540	27	3·162	
Mudgee	120	.....	.....	54·1	.....	W.	0·0	62·5	46·2	3·760	11	0·700	8	4·140	
West Maitland	16	.....	.....	62·1	.....	W.	1·2	70·9	53·2	3·490	13	1·500	1	2·966	River flooded, 1st, 2nd, and 3rd.
Newcastle	1	112	30·000	61·1	84	N.W.	0·3	67·6	54·5	6·440	20	2·450	1	.....	Frost during month.
Hexham	8	.....	.....	59·4	.....	W.	1·2	65·2	53·5	3·830	10	1·400	2	3·769	
Orange	132	2891	.....	52·8	.....	S.W.	0·7	57·9	47·7	3·340	15	0·770	9	1·838	Gale and frost on 31st.
Bathurst	100	2333	.....	52·9	92	S.W.	1·0	65·7	40·0	2·850	12	0·630	2	.....	
Kurrajong	35	1870	.....	51·8	.....	W.S.W.	...	57·0	46·6	6·900	19	1·000	23	.....	Violent squall on 26th.
Parramatta	16	.....	.....	58·9	.....	S.W.	0·3	65·6	52·2	10·340	18	2·350	1	4·817	
Double Bay	3	.....	.....	.....	.....	.....	...	.....	.....	9·770	18	1·700	9	.....	
Sydney	5	155	30·013	59·5	85	W.	0·6	65·2	53·7	10·113	21	1·796	22	1·304	
Liverpool	16	.....	.....	.....	.....	.....	...	.....	.....	8·810	20	2·010	1	.....	
Wentworth	320	.....	.....	.....	.....	N.E.	0·0	63·0	.....	2·253	8	1·050	7	2·270	
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	10·080	16	3·650	1	.....	
Wollongong	0	.....	.....	59·1	.....	S.W.	2·1	64·6	53·6	6·300	9	1·670	26	.....	Easterly gale, 19th.
Moss Vale	31	.....	.....	50·4	.....	W.	1·0	55·3	45·4	14·770	20	3·720	1	.....	
Goulburn	57	2129	30·117	53·4	88	W.	0·1	63·2	43·5	7·580	17	1·930	1	4·836	
Wagga Wagga	164	.....	.....	.....	.....	N.E.	1·0	.....	48·1	3·970	10	0·860	2	3·625	
Cape St. George	0	175	29·973	58·7	89	S.	1·9	63·7	53·7	21·049	23	4·420	1	.....	Aurora, 24th.
Queanbeyan	63	.....	.....	48·3	.....	W.	0·0	51·0	45·5	5·570	15	1·820	1	4·017	Frosty during month.
Urana	224	.....	.....	.....	.....	W.	...	.....	46·3	0	0	0	...	3·694	No rain during month.
Deniliquin	278	410	30·204	63·5	88	S.W.	1·0	70·5	56·5	3·080	8	1·390	8	.....	
Kiandra	84	4640	30·306	41·1	83	S.E.	0·7	49·7	32·5	6·700	19	1·310	1	.....	Snow on 29th and 30th.
Cooma	47	.....	.....	49·6	.....	S.E.	1·3	58·5	40·7	6·690	15	2·150	1	.....	Frost during month.
Albury	163	572	.....	.....	.....	.....	...	.....	.....	2·250	8	1·250	8	1·836	
Eden	0	107	29·975	59·4	89	S.W.	1·3	64·6	54·2	12·000	22	2·500	10	.....	Aurora, 22nd.

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES

1871

MAY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Barometer
Scale
1 Div. to 1 [inches]

30·5
30·0
29·5

Wind
Scale of Force
1 Div. to 1 [lbs.]

N.
E.
S.
W.
N.

10

Ozone
Scale
1 Div. to a Degree

0

Temperature
Scale
1 Div. to 2°

70
60

Humidity
Scale
1 Div. to 5 Degrees

100

Rain
Scale
1 Div. to 1 [inches]

0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

The dark vertical lines represent Force of Wind & Rain.

Lithographed at the Surveyor Generals Office, Sydney, June 1871

Heavy Dew on the 4th, 6th & 14th.

METEOROLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORY, SYDNEY,

AND AN

ABSTRACT FROM THE COUNTRY STATIONS,

FOR THE

MONTH OF JUNE, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER

1871.

[*Price, 6d.*] Su 35—71

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY.

LATITUDE 33° 51′ 41″ LONGITUDE 10h 4m 46s

Magnetic Variation 9° 35′ 5″ East.

JUNE, 1871.

GENERAL ABSTRACT.

BAROMETER .. At 32° Fah.	Highest Reading ...	...	30·115	... On the 2nd, at 10 a.m.
	Lowest Reading ...	...	29·295	... On the 18th, at 2 a.m.
	Mean Height ...	...	29·764	

(Being 0·189 inches less than that in the same month on an average of the preceding 12 years.)

WIND	Greatest Pressure...	...	12·0 lbs.	... On the 10th.
	Mean Pressure ...	...	0·6 lbs.	
	Number of Days Calm ...		0	
	Prevailing Direction	...	W.	

(Prevailing direction during the same month for the preceding 12 years ... W.)

TEMPERATURE	Highest in the Shade	...	65·2	... On the 3rd and 30th.
	Lowest in the Shade	...	41·5	... On the 29th.
	Greatest Range ...	...	21·4	... On the 29th.
	Highest in the Sun	...	102·0	... On the 3rd.
	Highest in a Black Box with Glass Top ...	...	137·0	... On the 3rd.
	Lowest on the Grass	...	37·9	... On the 29th.
	Mean Diurnal Range	...	13·9	
	Mean in the Shade	...	53·8	

(Being 0·8 less than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..	Greatest Amount...	...	100·0	... On the 18th, and 23rd.
	Least	...	50·0	... On the 27th.
	Mean	...	78·6	

(Being 2·7 greater than that of the same month on an average of the preceding 12 years.)

RAIN	Greatest Fall ...	...	1·187 inches.	On the 23rd.
	Number of Days ...	...	9	
	Total Fall		3·643 inches.	65 ft. above the ground.
			4·575 inches.	15 inches above the ground.

(Being 0·955 inches less than that of the same month on an average of the preceding 12 years.)

EVAPORATION	Total Amount ...	...	1·511 inches.
OZONE	Mean Amount ...	...	4·5

(Being 0·8 less than that in the same month on an average of the preceding 12 years.)

ELECTRICITY ..	Number of Days Lightning	4
CLOUDY SKY ..	Mean Amount	5·6
	Number of Clear Days ...	2
METEORS ..	Number Observed ...	4

REMARKS.

The weather during the month was generally fine and clear with prevalent westerly winds; the mean temperature 0·8 below the average of previous 12 years, and the rain 0·955 inches less than the average for the same period. On the 6th, at 9·30 a.m., a waterspout was seen at sea from Cape St. George. On the 8th, a shock of earthquake was felt at Cooma at 2·30 p.m.; at Queanbeyan at 2·37 p.m., lasted 3 seconds; and at Kiandra at 2·40 p.m. On the 11th, the Aurora Australis was seen at Eden, Cape St. George, Sydney, and Newcastle. On the 18th, a strong easterly gale began at Eden accompanied with high sea; some damage was done to buildings, and one gable blown in; gale continued in squalls to 22nd. On 21st and 22nd, there was a similar gale at Cape St. George; and on 23rd, a high sea at Newcastle from E.S.E. On 22nd, S.W. wind and heavy rain at Sydney. On 19th, heavy rain and floods at Cooma. 17th, 18th, and 19th, snowing all day at Kiandra. At Inland Stations, sharp frosts were frequent during the month.

SYDNEY, JUNE, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level.	Wind.		Temperature.						Sun.	Grass.		Humidity 0-100.
					Dry.	Wet.	Shade.							
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.	Sea Water. 9 a.m.	Mean 9.3.9.
1		30·373	W.	88	55·7	52·9	63·1	47·7	15·4	55·4	99·8	43·7	64·4	82·7
2		·403	W.	59	56·6	53·9	63·5	50·9	12·6	57·2	99·0	47·0	64·4	82·7
3	Full. Perigee.	·297	W.N.W.	113	56·3	54·2	65·2	48·0	17·2	56·6	102·0	45·0	64·2	86·0
4		·164	W.N.W.	54	51·8	51·1	64·6	49·1	15·5	56·9	101·5	46·1	64·0	94·0
5	G.S. Dec.	·208	S.S.W.	204	56·6	54·9	63·2	51·2	12·0	57·2	98·0	48·1	64·2	89·0
6		·088	S.S.W.	504	58·4	56·7	62·1	52·2	9·9	57·2	83·5	50·3	64·0	89·0
7		29·960	S.S.W.	393	54·9	52·2	59·4	53·7	5·7	56·6	87·2	49·6	63·6	82·0
8		·971	W.	154	53·1	49·4	59·2	47·2	12·0	53·2	98·2	43·8	63·8	76·7
9		30·014	W.	284	54·7	50·6	63·0	47·9	15·1	55·5	99·6	43·8	63·6	74·7
10	Last Qr.	·020	W.	272	54·8	49·4	59·9	45·3	14·6	52·6	94·3	41·1	63·2	67·7
11		·110	W.	80	52·2	49·5	60·2	50·2	10·0	55·2	95·3	46·1	63·0	81·0
12	In Equat.	·280	W.	90	51·5	48·1	59·2	42·4	16·8	50·8	95·6	38·6	63·2	78·3
13		·269	N.W.	253	52·4	47·7	60·9	41·8	19·1	51·4	95·5	38·1	63·0	72·3
14		·083	W.S.W.	348	57·6	49·5	64·5	43·9	20·6	54·2	100·0	45·8	62·8	72·0
15		·317	W.	159	52·4	47·8	59·9	44·5	15·4	52·2	96·0	40·9	62·6	72·3
16		·277	W.	149	49·5	47·7	56·3	42·0	14·3	49·2	88·4	38·2	62·8	87·3
17	Apogee.	·000	W.	137	50·4	48·7	57·0	41·9	15·1	49·5	85·0	38·1	62·2	88·0
18	New.	29·717	N.N.W.	291	51·0	51·0	54·2	43·4	10·8	48·8	82·0	43·1	62·4	100·0
19	G.N. Dec.	·698	W.	204	54·7	49·3	60·2	48·5	11·7	54·4	99·0	44·6	62·2	68·0
20		·949	W.	223	50·6	47·4	58·4	43·3	15·1	50·9	93·2	39·9	62·4	79·3
21		·920	W.	263	52·0	49·8	58·1	43·1	15·0	50·6	93·5	39·4	62·2	85·0
22		30·016	S.W.	426	53·8	52·7	59·2	46·6	12·6	52·9	92·0	45·4	61·8	92·0
23		·043	W.	249	54·1	54·0	57·5	51·0	6·5	54·3	80·3	47·1	61·6	99·0
24		29·900	W.	314	55·9	50·6	60·5	49·5	11·0	55·0	94·2	45·6	61·4	69·3
25		·818	W.	371	52·0	47·4	58·1	49·5	8·6	53·8	93·1	45·3	60·8	70·0
26	First. In Equat.	30·035	N.W.	231	53·4	49·1	60·6	43·4	17·2	52·0	93·9	40·1	60·6	73·7
27		29·974	W.N.W.	352	57·9	50·5	63·0	47·3	15·7	55·2	98·9	42·4	60·4	60·0
28		30·108	W.	207	56·5	49·9	62·9	53·3	9·6	58·1	98·0	47·9	60·6	63·0
29		·311	N.	282	54·8	48·7	62·9	41·5	21·4	52·2	97·6	37·9	60·4	66·7
30		·017	N.N.W.	314	61·2	52·7	65·2	45·1	20·1	55·2	86·7	47·3	60·6	55·7
				Sum.										
Means	.....	30·078	W.	7071	54·2	50·6	60·7	46·8	13·9	53·8	94·0	43·7	62·5	78·6

Observations of Standard Barometer taken at 9 a.m. Barometer corrected to 32° Fah. and Mean Sea Level. The Barometer at 9 a.m. reads 0·044 above the true mean for the day.

SYDNEY, JUNE, 1871.

Date.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
1	·0	0·030	...	5·0	5·0	5·3	Cloudy morning; forenoon and afternoon fine, and evening after 7·30 p.m. cloudy and fine alternately; heavy dew during night.
2	0·002	0·024	3·5	5·0	4·3	0·7	Fine day; forenoon was cloudy between 11·15 a.m. and 11·40 a.m.; narrow belt of clouds on horizon during the day; heavy dew during night.
3	0·005	0·025	4·5	5·0	4·8	5·3	Fine in the forenoon until after 12 p.m.; afternoon and evening cloudy, excepting from 4 p.m. until 7 p.m.; heavy dew during night.
4	0·006	0·027	...	...	...	10·0	Cloudy day; clouds chiefly cirrus; solar ring at 4 p.m.; lunar halo at 12·10 a.m., 45 degrees in diameter.
5	0·002	.....	4·5	6·0	5·3	10·0	Cloudy day until 9·30 p.m.; thunderstorm E. at 5 a.m. and lightning; rain from 6·30 p.m. until 8 p.m.; lunar halo 9 p.m.; fine at 9·30 p.m.
6	0·866	0·209	8·5	6·5	7·5	10·0	Cloudy day; heavy showers from 1 a.m. to 3 a.m.; forenoon, afternoon, and evening dull and showery; at 7·15 p.m. partial clearing and fine and turned cloudy again.
7	0·340	0·080	5·5	4·5	5·0	10·0	Cloudy day; light rain in morning, showery in forenoon, about 7 p.m. partial clearing to S.; forenoon stormy.
8	0·030	0·025	3·0	5·0	4·0	4·0	Fine in morning until 8·30 a.m.; afternoon and evening cloudy, and nearly the whole of forenoon; fine again at 8 30 p.m.
9	·0	0·052	4·0	4·5	4·3	3·0	Fine until noon, and then cloudy until after 4 p.m.; evening fine and clear, a little stratus clouds on the horizon to W.
10	·0	0·056	4·0	5·0	4·5	8·0	Fine morning; remainder of day cloudy; partial clearing at noon for about half an hour, dry cold wind blowing during day.
11	·0	0·060	...	...	2·5	3·0	Fine morning; forenoon cloudy from 9·30 a.m.; afternoon and evening fine and clear; light dew fell during night. Bright Aurora Australis, S.W., visible from midnight until after 1 a.m.; 15 degrees altitude.
12	·0	0·020	3·0	4·5	3·8	3·3	Fine until 12·45 p.m. and very cold; afternoon cloudy fine again during evening hazy-looking to W. and dew falling. 2 meteors observed, one at 7·41 p.m., and the other 8.45 p.m.
13	0·004	0·060	4·0	5·0	4·5	1·3	Fine all day, morning foggy looking S. and E.; remainder of day clear, clouds S.E. and W. at 9 p.m.; very cold during the day.
14	·0	0·082	4·0	5·5	4·8	0·3	Fine day; forenoon cloudy from 10·45 a m. until after 1 p.m.; dry cold wind blowing during the day.
15	·0	0·026	3·5	4·5	4·0	0·0	Fine all day and cold. 2 meteors observed, one at 8·20 p.m. near the zenith, the other at 8·48 p.m. W.; dew falling.
16	0·002	0·015	3·0	5·0	4·0	7·3	Cloudy until 5·30 p.m.; evening fine and hazy to W.; dew falling.
17	0·003	.....	1·0	5·0	3·0	10·0	Cloudy and dull; evening foggy. Lightning S.E. at 9·20 p.m.
18	0·806	0·029	...	...	4·0	10·0	Morning rainy from 2·30 a.m. until about 9·30 a.m.; cloudy until evening when it became fine.
19	0·001	0·036	3·5	5·0	4·3	4·0	Fine until 3·30 p.m., then cloudy until 7 p.m. Lightning E. during evening snd S.S.E. at 9 p.m.; dew falling.
20	0·001	0·030	4·0	5·0	4·5	0·3	Fine, cold, and clear; hazy to W. and dew falling.
21	0·002	0·053	4·5	9·0	6·8	9·3	Cloudy; partial rainbows at 4·5 p.m. and 4 55 p.m.; dull all afternoon to W. Steady rain set in about 6 p.m.
22	0·990	0·081	6·0	8·5	7·3	9·0	Cloudy; steady rain, morning; light showers, afternoon and evening, with partial rainbows at intervals, S. S.W. gale in forenoon.
23	1·187	0·004	7·0	8·0	7·5	8·7	Cloudy; raining nearly all forenoon; rainbow 9·20 a.m.; partial rainbows S. during forenoon and afternoon; heavy clouds on coast.
24	0·326	0·079	4·5	5·0	4·8	4·0	Fine until evening, and then cloudy.
25	0·001	0·060	..	...	2·5	9·0	Cloudy until afternoon, and remainder of day fine and evening; lightning E. and S.E. all evening; meteor observed 8·10 p.m.
26	·0	0·046	2·5	3·0	2·8	4·0	Cloudy until after 2 p.m. and fine and clear rest of day.
27	·0	0·081	3·0	5·0	4·0	7·0	Fine from 12·30 p.m. until 7·30 p.m., rest of day cloudy; strong breeze during day.
28	·0	0·057	2·5	5·0	3·8	0·0	Fine and clear; hazy to W. in evening; dew fell in night.
29	0·001	0·058	3·5	4·5	4·0	3·0	Morning cloudy, also from 12·45 p.m. until 1·45 p.m., and again after 9·30 p.m.; lunar halo 9·40 p.m.
30	·0	0·106	3·0	4·0	3·5	9·3	Cloudy, about 5 p.m. clouds cleared off and came up again.; lunar halo at 9·45 p.m
	Sum.	Sum.					
Means	4·575	1·511	4·0	5·3	4·5	5·6	

Cloudy sky taken at 9 a.m., 3 p.m., and 9 p.m. Amount of Rain, Dew, and Evaporation recorded at 9 a.m., for the previous 24 hours.

Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.

Heavy dew on the 2nd, 3rd, 4th, 5th, 13th, 16th, 17th, 20th, 21st, and 29th.

Date.	Self-registering Barometer at 32°.					Self-registering Anemometer.																				
	Mean	Max.	Hour.	Min.	Hour.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure. lbs.	Greatest Pressure. Direction of Wind. Time.	
1	30·063	30·100	8 & 9 a.m.	30·015	3 p.m.	2	2	1	...	14	...	...	...	...	...	...	...	...	...	...	5	88	3·7	0·1	0·5	W.	10·15 a.m.
2	·035	30·115	10 a.m.	29·990	5 & 6 a.m.	...	3	1	1	14	...	...	...	...	...	...	...	...	...	4	1	59	2·5	0·0	0·3	W.	8·52 a.m.
3	29·895	30·020	9 & 10 a.m.	·845	4 & 5 a.m.	1	2	1	...	3	6	2	1	3	3	1	1	...	...	...	...	113	4·7	0·1	1·0	E.N.E.	2·30 p.m.
4	·874	29·905	8 a.m.	·825	3 & 4 p.m.	...	...	...	...	1	11	9	...	3	...	...	...	...	...	...	...	54	2·3	0·0	0·2	W.N.W.	7· 5 a.m.
5	·867	·935	9 a.m.	·810	5 a.m.	6	8	1	2	1	1	...	...	...	...	...	...	...	...	...	5	204	8·5	0·4	1·6	S.	10·12 p.m.
6	·720	·825	9 a.m.	·675	4 & 5 a.m.	4	14	...	...	...	...	...	...	...	...	...	...	...	...	1	5	504	21·0	2·2	5·8	S.	1·25 a.m.
7	·685	·710	9 p.m.	·650	2 & 3 p.m.	...	7	6	7	4	...	...	...	...	...	...	...	...	...	...	...	393	16·4	1·3	6·5	S.S.W.	12·55 p.m.
8	·689	·730	8 a.m.	·630	2 p.m.	2	...	...	5	17	...	...	...	...	...	...	...	...	...	...	...	154	6·4	0·2	1·3	W.	4· 0 a.m.
9	·746	·775	8, 9, 10, & 11 p.m.	·700	1 p.m.	...	...	...	4	17	3	...	...	...	...	...	...	...	...	...	...	284	11·8	0·7	2·2	W.	9·45 p.m.
10	·710	·800	a.m.	·675	2 p.m.	...	...	...	2	13	4	5	...	...	...	...	...	...	...	...	...	272	11·3	0·6	12·0	W.N.W.	8·20 p.m.
11	·899	·995	8 & 8 a.m.	·820	1 p.m.	6	1	1	3	12	1	...	...	...	...	...	...	...	...	...	...	80	3·3	0·1	0·7	W.S.W.	10· 0 a.m.
12	·975	30·000	8, 9, 10, & 11 a.m. 8, 9, 10, & 11 p.m.	·930	3 p.m.	...	...	...	6	16	2	...	...	...	...	...	...	...	...	...	...	90	3·8	0·1	0·6	W.	8· 0 a.m.
13	·846	29·995	9 a.m.	·780	5, 6, & 7 a.m.	...	...	...	...	6	7	9	2	...	...	...	...	...	...	...	...	253	10·5	0·6	3·1	W.N.W.	7· 0 a.m.
14	·881	30·000	8 a.m.	·780	1, 2, & 3 p.m.	...	...	5	9	7	1	...	2	...	...	...	...	...	...	...	...	348	14·5	1·1	3·1	S.W.	3·45 p.m.
15	·989	·025	10 & 11 a.m.	·965	4 & 5 a.m.	...	...	...	...	16	8	...	...	...	...	...	...	...	...	...	...	159	6·6	0·2	1·1	W.	11· 0 a.m.
16	·840	30·000	9 a.m.	·720	7 a.m.	...	...	...	...	18	6	...	...	...	...	...	...	...	...	...	...	149	6·2	0·2	1·1	W.	8·30 a.m.
17	·570	29·725	9 a.m.	·460	6 & 7 a.m.	...	1	3	3	13	...	...	...	...	...	...	...	3	...	...	1	137	5·7	0·2	1·1	W.	1·27 a.m.
18	·349	·465	9 a.m.	·295	2 a.m.	...	...	1	3	8	1	2	8	1	...	...	...	...	...	...	...	291	12·1	0·7	2·4	N.W.	8·20 a.m.
19	·554	·680	8 a.m.	·435	9 a.m.	...	...	...	...	11	6	2	5	...	...	...	...	...	...	...	...	204	8·5	0·4	1·3	N.W.	9·50 a.m.
20	·633	·680	9 & 10 a.m.	·605	2, 3, & 4 p.m.; 4 & 5 a.m.	...	...	...	1	23	...	...	...	...	...	...	...	...	...	...	...	223	9·3	0·4	1·8	W.	11· 0 a.m.
21	·636	·705	8 a.m.	·560	5 p.m.	...	1	4	5	6	4	...	...	...	1	1	2	...	...	...	...	266	11·1	0·6	3·1	S.W.	3·10 a.m.
22	·742	·780	8, 9, & 10 p.m.	·695	1 p.m.	...	8	13	1	1	1	...	...	...	...	...	...	...	...	...	...	426	17·8	1·6	11·0	S.S.W.	1·25 p.m.
23	·683	·785	9 a.m.	·600	5 a.m.	2	3	2	3	13	1	...	...	...	...	...	...	...	...	...	...	249	10·4	0·5	2·4	W.	7·55 a.m.
24	·543	·630	9 a.m.	·500	1, 2, 4, & 5 a.m.	...	...	...	4	7	3	7	3	...	...	...	...	...	...	...	...	314	13·1	0·9	3·4	W.S.W.	2·55 a.m.
25	·638	·780	8 a.m.	·510	1 p.m.	...	...	...	3	15	4	2	...	...	...	...	...	...	...	...	...	371	15·5	1·2	6·1	W.	2·45 p.m.
26	·731	·785	10 a.m.	·705	2 & 3 p.m., & 4 a.m.	...	...	...	2	8	5	9	...	...	...	...	...	...	...	...	...	231	9·6	0·5	2·9	W.	2·36 p.m.
27	·663	·765	7 a.m.	·575	2 p.m.	...	...	1	2	6	11	4	...	...	...	...	...	...	...	...	...	352	14·7	1·1	7·6	W.N.W.	10·27 a.m.
28	·938	30·010	7 & 8 a.m.	·825	9 & 10 a.m.	...	...	3	3	17	1	...	...	...	...	...	...	...	...	...	...	207	8·6	0·4	2·0	W.	9·50 a.m.
29	·834	·020	9 a.m.	·750	6 & 7 a.m.	...	...	...	2	2	...	...	1	14	...	4	1	...	...	...	...	282	11·8	0·7	5·1	N.	7·10 p.m.
30	·687	29·755	9 a.m.	·625	3 & 4 p.m.	...	...	...	1	2	5	1	12	3	...	...	...	...	...	...	...	314	13·1	0·9	2·0	N.N.W.	7· 0 p.m.
Sums or Means.	29·761	June 2nd. 30·115	10 a.m.	June 18th. 29·295	2 a.m.	23	50	43	72	291	92	52	34	24	4	6	4	3	...	5	17	7071	Mean. 9·8	Mean. 0·6			

The self-registering Barometer is photographic, and the Anemometer, mechanical. A set of Robinson's Cups record the velocity from which the pressure in lbs. per square foot, is obtained by the Formula $P = v^2 \times \cdot 005$. The direction of wind is taken at every hour.

ABSTRACT FROM METEOROLOGICAL STATIONS, FOR THE MONTH OF JUNE, 1871.

Stations.	Distance from Coast in miles.	Height above sea in feet.	Mean of Observations taken at 9 a.m., June, 1871.					Mean.	Mean.	For 24h. previous to 9 a.m.					Remarks.
			Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind.				Rain.				Evaporation in inches.	
						Direction.	Force. 0·6	Max.	Min.	Total Fall, inches.	No. of Days.	Greatest Fall, inches.	Date.		
Tenterfield	85	.....	.....	.....	.....	W.	1·5	.....	.....	0·590	3	0·320	18	1·712	Sharp frost on 13th.
Bourke	492	.....	.....	.....	.....	S.	0·4	61·7	.....	0·790	4	0·330	18	.....	
Narrabri	182	.....	.....	52·5	.....	S.W.	1·0	.....	.....	0·510	3	0·300	18	2·201	
Armidale	82	3278	30·183	44·0	85	S.W.	1·7	51·9	36·1	2·590	3	1·140	20	.....	
Port Macquarie	0	.....	.....	54·8	.....	S.W.	1·9	64·3	45·3	8·735	11	4·270	7	2·107	
Murrurundi	113	1050	.....	.....	.....	.....	...	.....	.....	.....	...	.....	...	.....	
Cassilis	140	.....	.....	49·9	.....	W.S.W.	0·0	58·1	41·6	0·900	4	0·580	19	2·195	
Dubbo	230	.....	.....	.....	.....	S.S.E.	0·5	57·3	.....	0·250	4	0·080	18	1·562	
Muswellbrook	96	.....	.....	53·1	.....	N.	0·6	61·4	44·7	.....	...	.....	...	1·450	
Mudgee	120	.....	.....	47·0	.....	W.	0·8	55·6	38·3	1·530	5	1·170	18	1·789	
West Maitland	16	.....	.....	.....	.....	.....	...	.....	.....	.....	...	.....	...	.....	
Newcastle	1	112	30·035	55·0	82	N.W.	0·4	62·5	47·4	2·690	8	1·030	6	.....	Aurora, on the 11th.
Hexham	8	.....	.....	51·8	.....	W.	1·5	58·7	44·9	1·310	6	0·460	6	2·311	
Orange	132	2891	.....	46·7	.....	S.	0·5	50·6	42·8	1·670	12	0·520	25	0·790	Hard frost during month.
Bathurst	100	2333	.....	45·3	80	W.	1·2	57·6	33·0	0·940	4	0·470	18	.....	Frosty during month.
Kurrajong	35	1870	.....	46·4	.....	W.	...	52·8	40·0	1·250	6	0·400	17	.....	Frosty and squally during month.
Parramatta	16	.....	.....	51·6	.....	W.	1·4	58·8	44·3	1·410	7	0·370	7	1·790	
Double Bay	3	.....	.....	.....	.....	.....	...	.....	.....	4·600	8	1·330	23	.....	
Sydney	5	155	30·078	53·8	78·6	W.	0·6	60·7	46·8	4·575	9	1·187	23	1·511	
Liverpool	16	.....	.....	46·0	.....	.....	...	.....	.....	2·142	8	0·610	23	.....	
Wentworth	520	.....	.....	.....	.....	E.	0·2	60·7	.....	0·760	9	0·170	19	1·588	
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	1·400	7	0·400	19	.....	
Young	148	.....	.....	.....	.....	.....	...	.....	.....	.....	...	.....	...	.....	
Cordeaux River	10	.....	.....	.....	.....	.....	...	.....	.....	4·810	7	1·200	22	.....	
Wollongong	0	.....	.....	53·0	.....	S.W.	1·7	59·6	46·4	5·400	6	2·130	24	1·795	S.E. gale, and heavy rain on the 6th
Moss Vale	31	.....	.....	43·0	.....	W.N.W.	1·0	48·7	37·4	3·280	6	1·050	22	.....	
Goulburn	57	2129	30·090	44·6	84	W.	0·02	55·5	33·6	1·370	9	0·510	18	1·456	Sharp frost during month.
Wagga Wagga	164	.....	.....	.....	.....	N.W.&N.E	1·0	.....	38·9	1·760	10	0·800	19	1·622	
Cape St. George	0	170	29·990	53·4	92	W.	1·4	59·8	47·1	6·020	10	1·400	24	.....	Aurora 11th; squally and gales during month.
Queanbeyan	63	.....	.....	37·9	.....	W.	0·2	42·4	33·3	1·500	1	1·500	25	2·087	Frost during month; shock of earthquake on 8th.
Urana	224	.....	.....	.....	.....	W.	0·3	.....	36·3	1·300	4	0·500	19	3·647	
Deniliquin	278	410	30·169	.....	89	S.W.	1·5	62·1	.....	0·880	6	0·410	19	.....	
Kiandra	84	4640	30·102	36·7	74	N.W.	0·7	43·5	29·8	9·190	19	2·800	27	.....	Snowing during month; shock of earthquake, 8th.
Cooma	47	2637	.....	41·6	.....	S.E.	1·4	52·9	30·2	4·130	5	3·140	19	0·759	Shock of earthquake on 8th; floods on the 19th; frosty.
Albury	163	572	.....	.....	.....	N.	0·6	.....	.....	1·840	11	0·500	19	0·942	Aurora, 11th. Very heavy squall and sea, 18th to 22nd; blowing down gable end of Telegraph Office.
Eden	0	107	29·938	53·5	87	S.	1·2	89·9	47·1	5·640	7	2·500	19	.....	

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES

1871 — **JUNE**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Barometer *at 32°*
Scale
1 Div. to 1 [inches]

30·5
30·0
29·5

Wind
Scale of Force
1 Div. to 1 [lbs.]

N.
E.
S.
W.
N.
10

Ozone
Scale
1 Div. to a Degree

0

Temperature
Scale
1 Div. to 2°

70
60

Humidity
Scale
1 Div to 5 Degrees

100

Rain
Scale
1 Div. to 2 [inches]

0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

The dark vertical lines represent Force of Wind & Rain.

Lithographed at the Surveyor Generals Office, Sydney July 1871.

Heavy Dew on the 2nd, 3rd, 4th, 5th, 13th, 16th, 17th, 20th, 21st and 29th.

OBSERVATORY
NOV

METEOROLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORY, SYDNEY,

AND AN

ABSTRACT FROM THE COUNTRY STATIONS,

FOR THE

MONTH OF JULY, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1871.

[*Price, 6d.*] 3u 40—71

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY.

LATITUDE 33° 51′ 41″ LONGITUDE 10h 4m 46s

Magnetic Variation 9° 35′ 5″ East.

JULY, 1871.

GENERAL ABSTRACT.

BAROMETER .. At 32° Fah.	Highest Reading ...	...	30·480	... On the 22nd, at 10 a.m.
	Lowest Reading ...	...	29·370	... On the 17th, at 4 a.m.
	Mean Height ...	...	29·879	

(Being 0·074 inches less than that in the same month on an average of the preceding 12 years.)

WIND	Greatest Pressure...	...	16·2 lbs.	... On the 18th.
	Mean Pressure ...	...	0·9 lbs.	
	Number of Days Calm ...		0	
	Prevailing Direction ...		W.	

(Prevailing direction during the same month for the preceding 12 years ... W.N.W.)

TEMPERATURE	Highest in the Shade ...	74·9	... On the 17th.
	Lowest in the Shade ...	38·7	... On the 8th.
	Greatest Range	28·0	... On the 17th.
	Highest in the Sun ...	106·6	... On the 17th.
	Highest in a Black Box with Glass Top ...	143·3	... On the 27th.
	Lowest on the Grass ...	34·1	... On the 8th.
	Mean Diurnal Range ...	15·7	
	Mean in the Shade ...	53·1	

(Being 0·8 greater than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..	Greatest Amount...	100·0	... On the 24th.
	Least	35·0	... On the 17th.
	Mean	69·8	

(Being 2·6 less than that of the same month on an average of the preceding 12 years.)

RAIN	Greatest Fall	0·219 inches.	On the 24th.
	Number of Days	4	
	Total Fall	0·185 inches.	65 ft. above the ground.
		0·298 inches.	15 inches above the ground.

(Being 3·898 inches less than that of the same month on an average of the preceding 12 years.)

EVAPORATION	Total Amount	2·191 inches.
OZONE	Mean Amount	3·9

(Being 1·0 less than that in the same month on an average of the preceding 10 years.)

ELECTRICITY ..	Number of Days Lightning	2
CLOUDY SKY ..	Mean Amount	2·9
	Number of Clear Days ...	8
METEORS ..	Number Observed ...	4

REMARKS.

The partial Eclipse of the Moon on the evening of the 2nd was well seen ; began 10·31 p.m., ended 12·34 a.m.

The rainfall during the month has been less than that in the same month since 1862. The ozone 1·0 less than the average, and the temperature 0·8 greater.

The barometer has been unsteady, and the barograph sheet for the 18th indicates a remarkable atmospheric disturbance on that day.

The wind has been, with very little variation, westerly. On the 14th and 17th, hot westerly or north-westerly winds were experienced at Sydney, Eden, Deniliquin, and Queanbeyan ; from 24th to 29th, strong westerly winds, rising to a gale in some places, were felt generally over the Colony. Heavy storm at Cooma, 15th.

Snow fell at Kiandra during greater part of the month ; at Orange on 19th ; and sleet at Tenterfield on the 18th.

Frosts were frequent at Inland Stations during the month.

The Aurora was seen at Eden and Queanbeyan on 22nd, and at Newcastle on the 30th.

At Bourke, the weather was dry and warm throughout the month.

SYDNEY, JULY, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level.	Wind.		Temperature.									Humidity 0-100.
					Dry.	Wet.	Shade.				Sun.	Grass.	Sea Water.	
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.	9 a.m.	Mean 9.3.9.
1		30·022	W.	178	55·0	50·0	61·0	52·6	8·4	56·8	96·2	49·4	60·4	69·7
2	Full. Perigee.	·175	W.	255	46·2	44·0	57·9	43·1	14·8	50·6	92·9	39·1	60·0	83·0
3	G.S. Dec.	·142	W.S.W.	358	54·1	48·3	60·9	45·0	15·9	53·0	96·5	39·6	60·2	66·0
4		·343	W.	136	50·3	46·3	57·9	43·9	14·0	50·9	94·2	39·3	59·6	75·0
5		·239	W.	248	46·6	44·8	51·5	40·0	11·5	45·8	78·0	36·0	59·4	86·3
6		·084	W.	361	51·0	45·5	59·1	41·4	17·7	50·3	91·9	37·4	59·2	65·3
7		·134	W.	232	50·5	45·8	58·4	42·4	16·0	50·4	94·0	38·4	59·4	69·7
8		·205	W.	199	49·0	45·4	59·7	38·7	21·0	49·2	95·0	34·1	59·2	77·7
9	Last Qr. In Equat.	·296	W.	147	44·6	42·3	57·9	40·4	17·5	49·2	95·9	36·5	59·0	82·0
10		·291	W.	183	51·8	50·8	61·5	40·9	20·6	51·2	98·6	37·6	59·2	92·3
11		·144	W.N.W.	153	54·1	50·3	61·9	42·2	19·7	52·1	100·0	38·5	58·8	76·3
12		·123	W.N.W.	176	49·0	47·7	53·9	44·4	9·5	49·2	73·3	40·5	58·6	90·3
13		·136	W.	179	49·1	46·3	58·3	41·1	17·2	49·7	93·1	37·3	58·8	81·7
14	Apogee.	·010	W.N.W.	434	60·1	51·9	66·5	43·3	23·2	54·9	100·1	40·2	58·6	57·3
15		29·645	S.W.	434	65·2	52·9	73·3	53·8	19·5	63·6	104·6	52·3	58·8	45·3
16		30·060	N.N.W.	222	47·7	42·4	64·2	43·5	20·7	53·9	101·1	40·1	58·6	65·0
17	G.N. Dec.	29·758	N.N.W.	474	66·4	53·5	74·9	46·9	28·0	60·9	106·6	43·4	58·4	43·0
18	New.	·541	W.	569	59·0	48·9	62·9	59·4	3·5	61·2	98·0	55·8	58·2	49·3
19		·685	W.	569	52·4	44·5	57·1	48·9	8·5	53·2	92·5	44·7	58·4	55·0
20		30·138	W.	268	48 9	42·9	57·0	42·4	14·6	49·7	92·7	39·0	58·2	62·7
21		·374	W.	129	48·9	44·8	58·6	39·1	19·5	48·9	97·1	35·4	58·0	74·0
22		·486	W.N.W.	135	50·3	48·0	58·3	39·6	18·7	49·0	90·0	36·1	57·0	84·7
23		·273	W.	135	47·6	47·5	55·2	43·5	11·7	49·4	71·0	42·4	57·2	99·0
24	In Equat.	29·751	W.N.W.	289	52·0	48·8	60·3	45·6	14·7	53·0	97·4	42·8	57·0	80·0
25	First Qr.	·639	W.	551	55·6	47·7	60·9	47·2	13·7	54·1	95·6	43·1	56·6	56·3
26		·696	W.	284	58·7	49·5	64·8	51·0	13·8	57·9	101·6	44·3	56·8	52·7
27		·870	W.N.W.	405	61·3	50·6	68·0	51·5	16·5	59·8	104·1	44·7	56·6	48·7
28		·723	W.	414	58·0	49·9	64·9	56·3	8·6	60·6	100·8	50·1	56·4	56·7
29		·971	W.	312	54·8	47·8	61·9	47·1	14·8	54·5	98·7	43·1	56·6	60·7
30	G. S. Dec. Perigee.	30·279	W.	189	48·6	46·0	59·4	44·8	14·6	52·1	95·8	41·1	56·4	81·0
31		·467	W.	150	51·9	48·4	61·0	41·6	19·4	51·3	99·2	38·0	56·6	78·0
				Sum.										
Means	.....	30·055	W.	8768	52·9	47·5	60·9	45·2	15·7	53·1	95·0	41·3	58·3	69·8

Observations of Standard Barometer taken at 9 a.m., 3 p.m., and 9 p.m. Barometer corrected to 32° Fah. and Mean Sea Level.
The Barometer at 9 a.m. reads 1·025 above the true mean for the day.

SYDNEY, JULY, 1871.

Date.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
1	·0	0·052	3·5	4·5	4·0	4·7	Morning, cloudy until 1 p.m.; rest of day fine. Drops of rain from passing clouds, 4·25 p.m. Lightning E.S.E., at 8·50 p.m.
2	·0	0·036	...	...	2·5	0·0	Fine day; evening clear. Lunar eclipse from 10·31 p.m. until 12·34 a.m.
3	·0	0·066	4·5	5·0	4·8	0·3	Fine day; morning cold; clear in the evening.
4	·0	0·030	4·0	4·5	4·3	0·3	Fine day; light clouds formed after 7 p.m., and disappeared again at 8 p.m. Dew falling.
5	0·002	0·028	4·5	5·0	4·8	10·0	Cloudy and dull all day; breaks in clouds at 7 p.m.
6	·0	0·062	4·0	5·0	4·5	3·3	Fine since 10·30 a.m., and cold; evening clear. Rainbow, S.W., with light rain at 9·24 a.m.
7	·0	0·044	4·0	4·5	4·3	0·0	Fine day, and clear; evening cold. Dew fell in the night.
8	0·001	0·026	2·0	5·0	3·5	0·0	Fine, cold, hazy to W., and dew falling.
9	0·001	0·026	...	...	2·8	0·0	Fine; heavy dew fell in the night.
10	0·003	0·028	4·0	4·5	4·3	3·7	Fine day, excepting the afternoon, which was cloudy; evening hazy; heavy dew fell in night.
11	0·003	0·028	2·5	5·0	3·8	4·3	Cloudy morning (cirrus); rest of day fine.
12	0·001	0·007	1·5	5·0	3·3	6·7	Cloudy, dull, until after 4 p.m., when clouds cleared off; hazy to W. in evening, and heavy dew falling.
13	0·005	0·036	2·5	5·0	3·8	0·0	Fine day, morning cold; foggy looking to W. in evening, and dew falling.
14	0·001	0·178	3·5	4·0	3·8	9·7	Cloudy, warm, dry wind during day; fine from 6 p.m. until 8·40 p.m. Meteor observed 8·35 p.m., W.
15	·0	0·153	2·0	5·0	3·5	5·7	Cloudy (cirrus) until evening; warm wind and dry. S.W. gale at 1 p.m., clear weather. Two meteors, one at 11·20 p.m., N. to S.W., the other 11·25 p.m., N. to S.W.
16	·0	0·091	...	...	2·5	1·0	Fine in morning and evening, rest of day cloudy; morning cool.
17	·0	0·218	1·5	4·0	2·8	6·3	Cloudy until evening, excepting from noon until 2·30 p.m., and again after 6 p.m.; warm wind in forenoon.
18	·0	0·160	4·0	4·5	4·3	3·7	Forenoon alternately cloudy and fine, remainder of day fine; strong dry wind all day.
19	·0	0·114	4·5	5·5	5·0	0·7	Fine day, cold and windy. Lightning E. during evening
20	·0	0·060	4·5	5·0	4·8	0·0	Fine; forenoon smoky looking to W.; skylight very bright in the evening.
21	·0	0·032	3·0	5·0	4·0	3·7	Cloudy until 2·30 p.m., rest of day fine; evening foggy looking to W., hazy, and dew falling.
22	0·002	0·015	3·5	5·5	4·5	6·7	Cloudy and dull until 3·30 p.m., then fine until 6·30 p.m., when it turned cloudy, and cleared again after 8 p.m.; meteor observed at 9·8 p.m.
23	0·054	0·000	...	...	3·0	10·0	Cloudy and dull; shower during night; raining lightly the greater part of day.
24	0·219	0·052	5·5	5·0	5·3	3·0	Dense fog until 8·30 a.m.; forenoon cloudy and fine alternately; rest of day fine; evening cold.
25	·0	0·110	4·5	5·0	4·8	0·3	Fine day, clear; W. gale in forenoon; evening cold.
26	·0	0·082	3·5	4·5	4·0	0·0	Fine day, cloudy at 11 a.m., and cleared; also cloudy from 6 p.m. until 8·30 p.m.
27	·0	0·162	3·0	3·5	3·3	0·0	Fine day and clear; skylight very bright.
28	·0	0·120	3·0	4·5	3·8	1·0	Fine day; heavy clouds to S. passing from W. to E. in forenoon; evening very clear and bright, also cool.
29	·0	0·071	4·0	5·0	4·5	3·0	Cloudy from 1 p.m. until 5 p.m.; two showers between 3·15 p.m. and 4 p.m.; forenoon and evening fine. Lunar halo 10·20 p.m.
30	0·003	0·054	...	...	2·8	1·0	Fine day; evening bright and clear; dew fell in night; an almost indistinguishable film of clouds during evening.
31	0·003	0·050	3·0	5·0	4·0	1·3	Fine day, very smoky looking; evening hazy, and dew falling; during evening an almost indistinguishable film of clouds.
	Sum.	Sum.					
Means	0·298	2·191	3·5	4·8	3·9	2·9	

Cloudy sky taken at 9 a.m., 3 p.m., and 9 p.m. Amount of Rain, Dew, and Evaporation recorded at 9 a.m., for the previous 24 hours.

Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.

Dew on the 5th, 8th, 9th, 10th, 11th, 13th, 14th, 22nd, and 31st.

Date.	Self-registering Barometer at 32°.					Self-registering Anemometer.																			
	Mean.	Max.	Hour.	Min.	Hour.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure. lbs.	Greatest Pressure. Direction of Wind. Time.
1	29·795	29·895	8 a.m.	29·705	2 & 3 p.m.	1	2	2	8	8	...	...	...	...	...	3	...	...	...	...	...	178	7·4	0·3	1·6	W.	2·47 a.m.
2	·834	·900	9 a.m.	·800	2 & 3 p.m.	...	...	...	1	16	6	1	...	...	...	...	...	...	...	...	...	255	10·6	0·6	3·6	W.N.W.	2·31 a.m.
3	·899	30·025	8 a.m.	·790	2 p.m.	...	...	3	16	5	...	...	...	...	...	...	...	...	...	...	...	358	14·9	1·1	4·5	W.S.W.	6·18 p.m.
4	·992	·065	10 a.m.	·940	5 a.m.	...	...	...	5	12	7	...	...	...	...	...	...	...	...	...	...	136	5·7	0·2	0·7	W.S.W.	10·50 a.m.
5	·816	29·955	9 a.m.	·760	5 a.m.	...	...	2	9	11	2	...	...	...	...	...	...	...	...	...	...	248	10·3	0·5	1·6	W.	4·30 a.m.
6	·772	·825	8 a.m.	·705	2 p.m.	...	...	4	5	15	...	...	...	...	...	...	...	...	...	...	...	361	15·0	1·1	3·4	S.W.	3· 0 p.m.
7	·859	·900	11 p.m. & 8 a.m.	·800	2 p.m.	...	...	...	9	14	1	...	...	...	...	...	...	...	...	...	...	232	9·7	0·5	1·8	W.S.W.	6·37 p.m.
8	·917	·990	8 a.m.	·860	3 p.m.	...	...	...	3	12	9	...	...	...	...	...	...	...	...	...	...	199	8·3	0·4	1·6	W.	1·15 a.m.
9	·989	30·020	10 & 11 p.m.	·960	2 & 3 p.m.	...	...	...	...	14	4	...	...	...	...	...	...	...	...	6	...	147	6·1	0·2	0·5	W.	9·42 a.m.
10	·875	·000	9 a.m.	·825	5 a.m.	...	...	...	...	10	4	...	...	2	1	7	...	...	...	...	...	183	7·6	0·3	1·3	N.	12·30 p.m.
11	·802	29·880	9 a.m.	·760	4 p.m.	...	...	...	1	8	8	...	1	1	...	1	1	3	...	...	...	153	6·4	0·2	0·7	W.N.W.	11·12 p.m.
12	·830	·860	10 & 11 a.m., & 11 p.m.	·795	2, 3, & 4 p.m.	...	...	1	...	11	12	...	...	...	...	...	...	...	...	...	...	176	7·3	0·3	0·7	W.	8· 0 a.m.
13	·749	·860	9 a.m.	·685	4 a.m.	...	...	...	...	13	5	6	...	...	...	...	...	...	...	...	...	179	7·5	0·3	2·0	W.N.W.	3·35 a.m.
14	·546	·740	9 a.m.	·400	4, 6, 7 & 8 a.m.	...	...	...	...	4	9	7	2	...	...	...	...	...	...	...	...	434	18·1	1·6	8·8	W.	7·47 a.m.
15	·567	·765	8 a.m.	·365	12 a.m., 1 p.m.	...	1	8	8	5	1	...	1	...	...	...	...	...	...	...	...	434	18·1	1·6	9·2	W.S.W.	1·40 p.m.
16	·637	·795	9 a.m.	·525	7 & 8 a.m.	...	...	...	...	6	...	3	6	4	...	2	3	...	...	...	...	222	9·3	0·4	1·6	W.	9·50 a.m.
17	·482	·720	9 a.m.	·370	4 a.m.	...	...	...	...	4	...	...	13	5	2	...	...	...	...	...	...	474	19·7	1·9	9·7	W.	5·25 a.m.
18	·617	·695	11 p.m.	·490	9 a.m.	...	...	...	1	12	11	...	...	...	...	...	...	...	...	...	...	569	23·7	2·8	16·2	W.	3· 0 p.m.
19	·923	30·125	8 a.m.	·705	9 a.m.	...	...	...	4	20	...	...	...	...	...	...	...	...	...	...	...	569	23·7	2·8	9·7	W.	12·52 p.m.
20	30·191	·265	8 a.m.	30·115	2 p.m.	...	...	...	6	16	2	...	...	...	...	...	...	...	...	...	...	268	11·2	0·6	2·2	W.S.W.	10· 0 a.m.
21	·388	·460	8 a.m.	·330	2 & 3 p.m.	...	...	...	...	24	...	...	...	...	...	...	...	...	...	...	...	129	5·4	0·1	0·8	W.	8·42 a.m.
22	·370	·480	10 a.m.	·295	4, 7, & 8 a.m.	...	...	...	2	2	8	...	...	1	...	...	3	8	...	...	...	135	5·6	0·2	0·6	W.N.W.	10·10 a.m.
23	29·995	·265	9 a.m.	29·765	7 a.m.	...	...	...	...	10	7	1	...	1	5	...	...	...	...	...	...	135	5·6	0·2	2·0	N.N.E.	7·30 p.m.
24	·664	29·770	9 a.m.	·600	5 a.m.	...	...	...	5	5	13	1	...	...	...	...	...	...	...	...	...	289	12·0	0·7	3·6	W.S.W.	5·28 p.m.
25	·621	·700	7 & 8 a.m.	·550	3 p.m.	...	...	...	...	21	2	1	...	...	...	...	...	...	...	...	...	551	23·0	2·6	11·0	W.	2·45 p.m.
26	·759	·850	8 a.m.	·670	2, 3, & 4 p.m.	...	1	...	1	9	9	4	...	...	...	...	...	...	...	...	...	284	11·8	0·7	2·4	W.	2·37 p.m.
27	·772	·875	9 & 10 a.m.	·685	8 a.m.	...	...	...	...	1	15	6	2	...	...	...	...	...	...	...	...	405	16·9	1·4	6·5	W.N.W.	7· 5 a.m.
28	·850	·970	8 a.m.	·700	1 & 2 p.m.	...	...	...	4	12	8	...	...	...	...	...	...	...	...	...	...	414	17·3	1·5	6·5	W.	3·15 p.m.
29	30·021	30·230	8 a.m.	·885	3 p.m.	...	1	2	2	14	3	2	...	...	...	...	...	...	...	...	...	312	13·0	0·9	4·2	W.	3·13 p.m.
30	·342	·435	8 a.m.	30·265	9 a.m.	5	6	...	2	7	4	...	...	...	...	...	...	...	...	...	...	189	7·9	0·3	1·8	S.	11· 0 a.m.
31	·368	·445	10 a.m.	·330	4 p.m.	...	...	...	...	16	...	1	...	...	...	7	...	...	...	...	...	150	6·3	0·2	1·3	W.	3·10 a.m.
Sums or Means.	29·879	July 22nd. 30·480	10 a.m.	July 17th. 29·370	4 a.m.	6	11	22	92	337	150	33	25	16	8	20	7	11	...	6		8768	Mean. 11·8	Mean. 0·9			

The self-registering Barometer is photographic, and the Anemometer, mechanical. A set of Robinson's Cups record the velocity from which the pressure in lbs. per square foot, is obtained by the Formula $P = v^2 \times \cdot 005$. The direction of wind is taken at every hour.

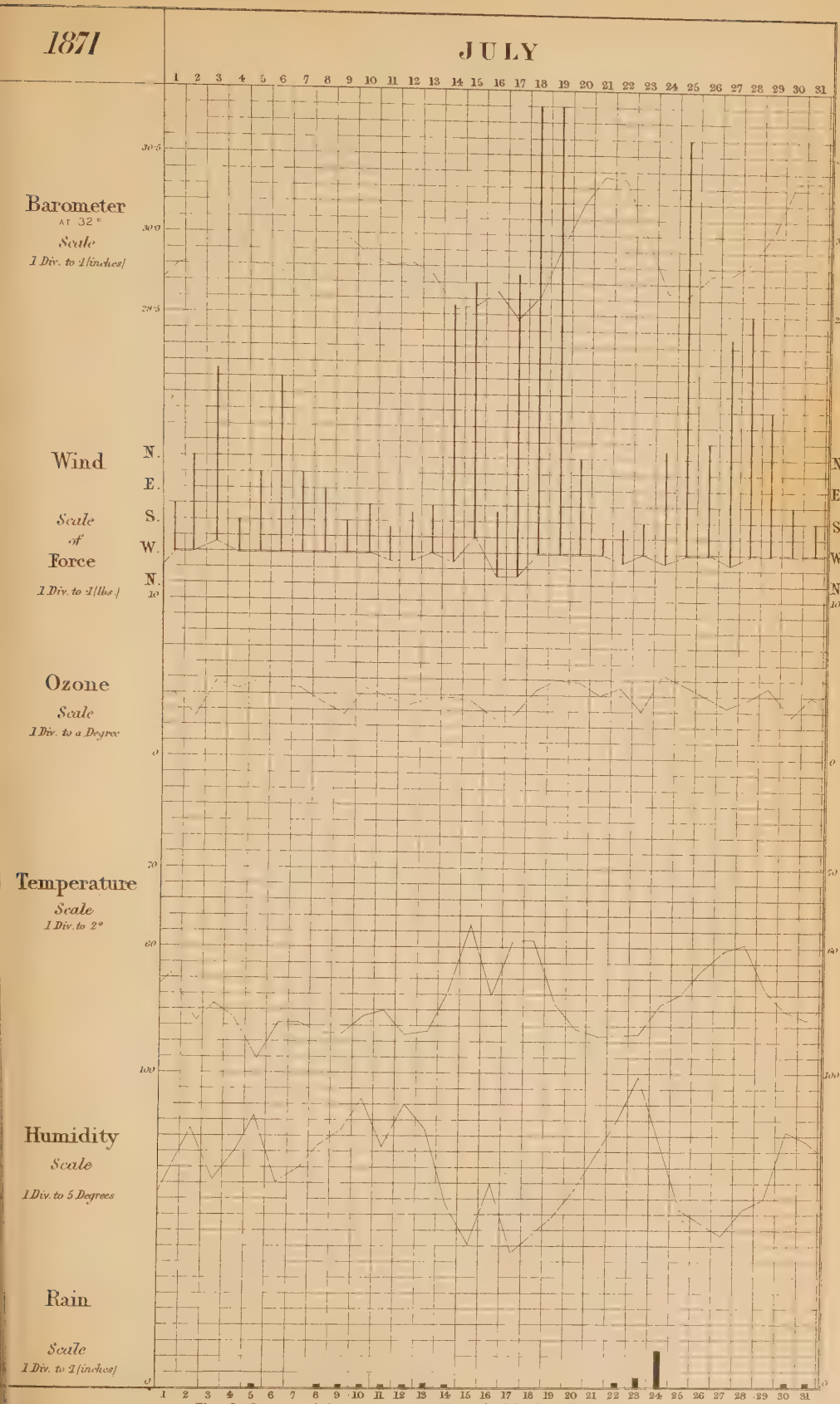
On 17th Zero of Barograph was found out of adjustment, and put right. Exactly same number of miles of wind on each two days, 14–15; 18–19; and 22, 23.

ABSTRACT FROM METEOROLOGICAL STATIONS, FOR THE MONTH OF JULY, 1871.

Stations.	Distance from Coast in miles.	Height above sea in feet.	Mean of Observations taken at 9 a.m., July, 1871.								For 24h. previous to 9 a.m.					Remarks.
			Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind.		Temperature in Shade.				Rain.				Evaporation in inches.	
						Direction.	Force. 0·6	Mean. Max.	Mean. Min.	Extreme. Max.	Extreme. Min.	Total Fall, inches.	No. of Days.	Greatest Fall, inches.	Date.		
Tenterfield	85	.....	.....	.....	.....	W.	1·7	.....	.....	.....	.....	1·220	7	0·360	13	1·436	Sharp frost on 11th; sleet on 18th.
Grafton	23	.....	.....	54·5	.....	W.	0·4	65·8	43·1	70·3	32·5	0·960	5	0·660	23	1·590	
Bourke	492	.....	.....	.....	.....	S.S.W.	0·6	62·1	.....	77·6	.....	0·120	1	0·120	25	.....	Very dry and warm during month.
Narrabri	182	.....	.....	51·8	.....	S.W.	1·0	.....	.....	.....	.....	1·490	5	0·500	12	2·353	
Armidale	82	3278	30·208	42·3	.....	W.	1·3	51·0	33·6	60·2	22·1	1·110	3	0·600	24	2·456	
Port Macquarie	0	.....	.....	53·6	.....	S.W.	1·6	64·3	42·8	76·3	35·8	0·425	4	0·210	24	2·876	
Murrurundi	113	1050	.....	47·5	.....	N.N.W.	...	56·2	38·8	61·5	27·3	1·117	6	0·520	24	3·490	
Cassilis	140	.....	.....	51·6	.....	W.	0·7	65·3	37·9	73·1	25·2	0·640	4	0·460	24	1·666	
Muswellbrook	96	.....	.....	50·9	.....	N.	0·8	62·4	39·3	74·8	30·3	.....	...	.....	...	1·174	
Dubbo	230	.....	.....	.....	.....	N.W.	...	57·1	.....	64·9	.....	1·160	3	1·040	24	1·667	
Mudgee	120	.....	.....	44·9	.....	W.	1·0	54·5	35·2	63·4	27·4	1·150	5	0·890	24	2·255	
West Maitland	16	.....	.....	54·4	.....	W.	1·6	63·7	45·0	80·3	35·8	0·710	3	0·500	24	3·592	
Hexham	8	.....	.....	51·5	.....	W.	1·8	60·1	42·8	70·3	34·5	0·650	3	0·390	24	3·222	
Newcastle	1	112	30·033	53·5	75	N.W.	0·5	62·0	45·0	72·3	36·8	0·560	4	0·350	24	.....	Aurora on 30th.
Orange	132	2891	.....	40·8	.....	S.W.	1·1	49·4	32·1	59·8	21·8	2·060	11	0·550	24	1·042	Snow on 19th.
Bathurst	100	2333	.....	44·3	84	W.	1·4	56·7	31·9	70·0	21·0	0·740	4	0·400	24	.....	Frost during month.
Kurrajong	35	1870	.....	45·3	.....	W.	...	52·9	37·7	66·0	31·0	0·400	1	0·400	23	.....	Squally weather during month.
Woodford	50	2192	.....	47·2	.....	W.	0·1	51·7	42·7	66·4	36·7	0·415	3	0·360	24	.....	Observations commenced on the 15th.
Parramatta	16	.....	.....	48·3	.....	W.	1·7	56·8	39·8	69·0	33·9	0·290	2	0·260	24	3·259	Ice on 21st; frost during month.
Sydney	5	155	30·055	53·1	69·8	W.	0·9	60·9	45·2	74·9	38·7	0·298	4	0·219	24	2·191	
Double Bay	3	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·330	2	0·250	24	.....	
Liverpool	16	.....	.....	.....	.....	.....	...	.....	.....	69·0	29·5	0·606	2	0·375	23	.....	
Wentworth	520	.....	.....	51·5	.....	W.	1·8	60·7	42·3	71·4	37·8	0·380	7	0·090	19	2·468	Gales on 18th and 28th. Min. Ther. readings from 25th.
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·420	1	0·420	24	.....	
Cordeaux River	10	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·390	3	0·260	24	.....	Heavy frost on 30th and 31st.
Wollongong	0	.....	.....	52·8	.....	W.	1·6	60·4	45·1	72·4	37·0	0·290	1	0·290	24	3·155	
Moss Vale	31	.....	.....	43·0	.....	N.W.	1·5	49·2	36·7	63·4	27·8	0·490	1	0·490	24	.....	
Goulburn	57	2129	30·063	44·1	79	W.	0·4	54·6	33·6	75·1	22·1	1·030	6	0·320	24	1·833	Ice on 10th and 12th; gale on 15th; frost during month.
Shoalhaven	4	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·190	2	0·120	24	.....	
Cape St. George	0	175	29·933	52·6	.....	W.	1·3	60·3	44·8	73·2	38·6	0·520	1	0·520	24	.....	S.W. gale, 16th, and Westerly gales on 19th, 26th, and 27th.
Queanbeyan	63	.....	.....	36·9	.....	W.	0·5	40·8	33·0	53·2	25·7	0·910	7	0·360	24	1·566	Aurora, 22nd; gale on 15th; frost during month.
Urana	224	.....	.....	.....	.....	W.	...	.....	34·4	.....	33·1	0·950	1	0·950	17	2·711	Frost, 22nd, 29th, 30th, & 31st.
Deniliquin	278	410	30·161	48·1	87	W.	1·8	59·1	37·0	68·1	27·5	0·790	7	0·200	13	.....	Hot winds, 14th, 17th; gale, N.W., 17th.
Kiandra	84	4640	30·100	31·6	66	N.W.	0·5	41·8	21·4	49·1	1·1	.....	...	.....	...	.....	Snowing all the month.
Cooma	47	2637	.....	41·1	.....	N.W.	2·0	54·1	28·1	63·6	18·8	0·390	3	0·260	24	0·839	Heavy storm, 15th; snow, 18th; frost during month.
Albury	163	572	.....	.....	.....	N.	0·7	.....	.....	.....	.....	2·030	15	0·320	26	3·100	Squally on 15th, 17th, and 18th.
Eden	0	107	29·843	52·7	83	S.	1·2	60·3	45·0	72·0	39·1	0·790	2	0·780	24	.....	Hot wind on 14th and 17th; gale, W.N.W. on 17th; snow on Mount Imlay, 20th; S.W. gale on 25th.

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES



The dark vertical lines represent Force of Wind & Rain.

Lithographed at the Surveyor Generals Office Sydney, Aug. 1871

Dew on the 5th 8th 9th 10th 11th 13th 14th 22nd and 31st

METEOROLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORY, SYDNEY,

AND AN

ABSTRACT FROM THE COUNTRY STATIONS,

FOR THE

MONTH OF AUGUST, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1871.

[*Price, 6d.*] 3*u* 41—71

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY.

LATITUDE 33° 51′ 41″ LONGITUDE 10h 4m 46s

Magnetic Variation 9° 35′ 5″ East.

AUGUST, 1871.

GENERAL ABSTRACT.

BAROMETER .. At 32° Fah.	Highest Reading	30·395	... On the 1st, at 9 & 10 a.m.
	Lowest Reading	29·565	... On the 29th, at 2 a.m.
	Mean Height	30·065	

(Being ·102 greater than that in the same month on an average of the preceding 12 years.)

WIND	Greatest Pressure... ...	18·6 lbs.	... On the 25th.
	Mean Pressure	0·5 lbs.	
	Number of Days Calm ...	0	
	Prevailing Direction ...	W.	

(Prevailing direction during the same month for the preceding 12 years ... W.N.W.)

TEMPERATURE	Highest in the Shade ...	78·9	... On the 25th.
	Lowest in the Shade ...	39·1	... On the 2nd.
	Greatest Range	25·0	... On the 24th.
	Highest in the Sun ...	110·0	... On the 25th.
	Highest in a Black Box with Glass Top	165·0	... On the 31st.
	Lowest on the Grass ...	35·1	... On the 2nd.
	Mean Diurnal Range ...	19·3	
	Mean in the Shade ...	55·7	

(Being 1·5 greater than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..	Greatest Amount... ...	93·0	... On the 8th.
	Least	40·0	... On the 30th.
	Mean	69·0	

(Being 2·3 less than that of the same month on an average of the preceding 12 years.)

RAIN	Greatest Fall	0·360 inches.	On the 9th.
	Number of Days	5	
	Total Fall	0·296 inches.	65 ft. above the ground.
		0·467 inches.	15 inches above the ground.

(Being 2·866 inches less than that of the same month on an average of the preceding 12 years.)

EVAPORATION	Total Amount	2·559 inches.
OZONE	Mean Amount	4·1

(Being 0·5 less than that in the same month on an average of the preceding 10 years.)

ELECTRICITY ..	Number of Days Lightning	7
CLOUDY SKY ..	Mean Amount	3·5
	Number of Clear Days ...	9
METEORS ..	Number Observed ...	6

REMARKS.

The weather during the month was fine and dry, the barometer 0·102 in. higher than the average, and the mean temperature, 1·5 greater. At Sydney and the coast districts generally the total rainfall for the month was less than ½ an inch, on the high land west of the main range it was from 1 to 2 inches, and far west, Bourke and Wentworth, about ¼ of an inch.

The prevalent winds were westerly. Occasional frosts were experienced in some districts; snow fell on the Canoblas on the 9th, and on the 7th, 13th, 18th, 25th, and 29th at Kiandra. On the 25th a hot wind was felt at Sydney, Wentworth, and Hexham.

SYDNEY, AUGUST, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level.	Wind.		Temperature.									Humidity 0-100.
					Dry.	Wet.	Shade.				Sun.	Grass.	Sea Water.	
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.	9 a.m.	Mean 9.3.9.
1	Full.	30·424	W.N.W.	158	52·6	47·7	61·9	44·4	17·5	53·2	100·2	40·7	56·4	71·3
2		·343	W.	173	51·7	48·2	60·9	39·1	21·8	50·0	97·7	35·1	56·6	77·7
3		·403	W.	167	53·8	50·4	60·9	43·9	17·0	52·4	99·8	40·2	56·8	78·3
4		·372	N.W.	198	57·2	51·0	66·8	42·1	24·7	54·5	103·0	38·2	56·6	67·3
5	In Equat.	·221	N.	237	58·7	52·4	64·9	45·9	19·0	55·4	78·2	42·0	56·4	64·7
6		29·997	N.W.	253	60·7	54·5	67·9	52·5	15·4	60·2	108·1	48·7	56·6	65·0
7		·968	N.	311	62·3	57·0	69·1	53·1	16·0	61·1	107·0	48·9	56·4	70·0
8	Last Qr.	·724	W.	359	56·5	54·1	63·9	56·6	7·3	60·3	84·0	53·1	57·0	84·0
9		·880	W.	354	50·3	43·8	55·9	45·6	10·3	50·8	93·8	40·8	57·2	60·3
10		30·030	W.	200	51·3	47·3	59·9	40·0	19·9	50·0	96·3	35·9	57·0	74·3
11	Apogee.	·215	W.	164	53·0	48·8	60·4	40·6	19·8	50·5	100·0	36·9	57·2	73·0
12		·195	W.	187	53·1	48·3	62·9	40·2	22·7	51·6	103·0	36·2	57·6	71·3
13	G.N. Dec.	·218	W.N.W.	141	49·1	46·4	64·9	42·5	22·4	53·7	103·7	38·8	57·4	80·0
14		·197	W.	255	56·3	49·7	65·5	42·6	22·9	54·1	101·0	38·8	57·2	63·3
15		·325	W.N.W.	119	55·1	49·9	64·8	43·6	21·2	54·2	102·0	39·6	57·4	69·7
16	New.	·344	W.	138	53·9	50·9	61·2	43·8	17·4	52·5	96·0	40·1	57·2	80·3
17		·213	E.	151	56·1	53·4	61·2	48·4	12·8	54·8	99·6	45·8	57·4	82·7
18		·009	N.N.W.	315	63·4	55·3	70·5	50·4	20·1	60·5	98·6	45·5	57·6	59·7
19		·020	W.	200	54·8	47·5	62·2	46·5	15·7	54·4	99·0	43·1	57·4	60·0
20	In Equat.	29·998	W.	151	50·0	47·0	69·9	45·8	24·1	57·9	105·8	39·9	57·6	79·0
21		30·014	W.	264	60·7	51·8	67·1	49·3	17·8	58·2	103·0	45·2	57·4	54·3
22		·246	W.N.W.	164	56·7	51·4	66·7	44·7	22·0	55·7	105·0	38·7	57·6	70·0
23	First Qr.	·220	W.	135	56·2	51·7	66·0	44·0	22·0	55·0	107·0	40·3	57·4	73·0
24		·253	N.N.E.	339	60·5	56·6	73·9	48·9	25·0	61·4	103·9	45·0	57·6	76·7
25		29·863	W.N.W.	434	65·8	56·1	78·9	55·5	23·4	67·2	110·0	54·2	57·8	53·7
26	G. S. Dec. Perigee.	30·227	E.N.E.	172	58·9	51·0	66·8	49·4	17·4	58·1	106·1	43·3	58·0	57·7
27		·117	W.	226	52·0	48·0	65·3	43·5	21·8	54·4	93·4	40·1	57·8	74·0
28		·129	E.S.E.	128	55·2	50·4	62·9	47·5	15·4	55·2	101·4	43·7	58·0	71·7
29		29·934	.....	315	58·7	53·9	66·9	43·0	23·9	55·0	105·4	38·0	58·4	72·7
30	Full.	·743	W.	299	61·7	50·2	67·2	49·3	17·9	58·3	105·0	54·5	58·2	46·0
31		·875	W.	335	58·8	50·7	68·0	44·5	23·5	56·3	107·0	40·0	58·0	58·0
				Sum.										
Means	.....	30·120	W.	7042	56·3	50·8	65·3	46·0	19·3	55·7	100·8	42·3	57·3	69·0

Observations of Standard Barometer taken at 9 a.m., 3 p.m., and 9 p.m., and corrected to 32° Fah. and Mean Sea Level.
The Barometer at 9 a.m. reads 0·046 above the true mean for the day.

SYDNEY, AUGUST, 1871.

Date.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
1	0·001	0·044	3·0	4·5	3·8	6·0	Sky nearly covered with a very thin film of clouds until about 4·30 p.m.; evening bright; dew fell in night.
2	0·003	0·052	2·5	5·5	4·0	0·3	Fine day, very smoky looking; hazy to W. in evening and dew falling. Lunar halo at 9·10 p.m.
3	0·001	0·051	4·0	5·0	4·5	0·3	Fine, heavy looking clouds N. about noon; evening bright; dew fell in the night.
4	0·001	0·073	4·5	5·0	4·8	0·0	Fine, but very smoky looking. Meteor observed at 12·17 a.m.; dry wind in evening.
5	·0	0·072	4·0	5·5	4·8	5·3	Cloudy and dull until about 4 p.m.; evening fine.
6	·0	0·061	...	...	2·8	10·0	Cloudy and dull until about 5 p.m. Thunderstorm with lightning along coast, 7·45 p.m. Showers at 7·50 p.m.
7	0·007	0·079	4·0	5·5	4·8	0·3	Fine; clouds moving in an opposite direction to the wind in forenoon. Lightning N. during the evening. Meteor observed S.S.W. at 8·24 p.m.
8	0·013	0·060	6·5	6·0	6·3	9·7	Cloudy; began raining about 1·35 p.m., and rained nearly all afternoon, until 5 p.m. Lightning about 9 p.m.
9	0·360	0·088	5·0	5·0	5·0	4·7	Afternoon cloudy until after 6 p.m.; rest of day fine, also cold.
10	·0	0·046	4·0	5·0	4·5	5·7	Evening fine, rest of day cloudy; very heavy clouds in forenoon. Meteor observed N. at 7·3 p.m.
11	·0	0·054	4·0	4·5	4·3	0·0	Fine; very smoky looking to W. during the day.
12	0·002	0·070	4·5	5·0	4·8	0·7	Fine; hazy looking to W. in the evening. Lightning N.E. at 11 p.m.
13	·0	0·056	...	...	2·5	0·0	Fine and warm. Light dew fell during the night.
14	·0	0·086	4·0	4·5	4·3	1·7	Fine; after 2·30 p.m. some heavy clouds formed. Light dew fell in the night.
15	·0	0·060	4·0	4·5	4·3	0·0	Fine; some clouds about the horizon during the day.
16	·0	0·050	4·0	5·0	4·5	5·0	From noon until 7·45 p.m. was cloudy and dull, rest of day fine. Light showers at 3·55 p.m. and 5·5 p.m.
17	0·003	0·047	4·5	5·5	5·0	10·0	Cloudy and dull. Thunderstorm with lightning from 4·30 p.m. till 5·30 p.m. Showers at 4·15 p.m. Heavy thundershower with hail at 5·20 p.m. Lightning during evening.
18	0·070	0·106	4·5	5·0	4·8	5·7	Cloudy until 8 p.m. Forenoon dull. Lightning, N., N.W., and N.E., during evening, flashing rapidly.
19	·0	0·096	4·0	4·0	4·0	3·3	Fine until about 7·30 p.m., and very dry. Meteor observed 7·55 p.m., W.
20	·0	0·088	...	...	2·0	3·0	Fine day, very warm, some clouds about in the morning.
21	·0	0·112	4·0	5·0	4·5	0·0	Fine; dry wind all day. Smoky looking W. Evening bright. Observed meteor at 7·20 p.m.
22	·0	0·084	3·5	5·0	4·3	0·0	Fine; very smoky looking to W. and along horizon; dew fell in night.
23	0·003	0·074	2·5	4·5	3·5	9·7	Forenoon cloudy and fine alternately; the clouds were cirrus and became heavy towards afternoon. Evening cloudy.
24	·0	0·116	3·5	5·0	4·3	4·3	Forenoon fine, rest of day cloudy and dull; clouds cleared after 10 p.m.
25	·0	0·138	3·0	4·5	3·8	4·7	Hot wind all morning, followed by W. gale about 11 a.m. Light shower, 3·15 p.m. Afternoon cloudy until 5 p.m.
26	·0	0·108	3·5	5·5	4·5	0·0	Fine; horizon very smoky looking in the afternoon. Evening clear.
27	·0	0·086	...	...	2·5	9·0	Cloudy. Light clouds in forenoon. Afternoon and evening very dull with heavy clouds.
28	·0	0·074	4·0	5·0	4·5	0·0	Fine; hazy looking to W. in the evening, and dew falling.
29	0·003	0·124	4·0	5·0	4·5	4·7	Cloudy and dull from noon until about 7·15 p.m.
30	·0	0·162	1·5	4·0	2·8	0·0	Fine and clear; very dry wind blowing all day. Skylight very bright in the evening.
31	·0	0·142	2·5	4·5	3·5	3·3	Cloudy from about 2 p.m. until 8 p.m. Rainbow S.E., and dropping rain at 4 10 p.m. Clouds began to clear about 4·30 p.m. to the E. Lightning E. and N.E. during evening.
	Sum.	Sum.					
Means	0·467	2·559	3·8	4·9	4·1	3·5	

Cloudy sky taken at 9 a.m., 3 p.m., and 9 p.m. Amount of Rain, Dew, and Evaporation recorded at 9 a.m., for the previous 24 hours.

Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.

Dew on the 1st, 2nd, 3rd, 4th, 12th, 23rd, and 29th.

SYDNEY, AUGUST, 1871.

Date.	Self-registering Barometer at 32°.					Self-registering Anemometer.																				
	Mean.	Max.	Hour.	Min.	Hour.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure. lbs.	Greatest Pressure. Direction of Wind. Time.		
1	30·305	30·395	9 & 10 a.m.	30·270	4 & 5 a.m.	...	...	...	...	4	7	...	3	3	1	6	...	...	...	...	...	158	6·6	0·2	0·8	W.N.W.	6·25 a.m.
2	·309	·370	8 a.m.	·225	3 p.m.	2	3	...	...	9	5	...	...	...	...	...	...	...	...	...	5	173	7·2	0·3	1·3	S.	12·50 p.m.
3	·339	·380	10 a.m.	·300	5 p.m.	...	...	...	...	9	6	...	...	1	2	3	1	2	...	...	...	167	7·0	0·3	1·4	N.E.	6·10 p.m.
4	·229	·350	10 a.m.	·190	5 a.m.	...	...	...	...	2	1	9	3	5	3	...	1	...	...	...	...	198	8·3	0·3	4·2	N.	8·35 p.m.
5	·081	·205	9 a.m.	29·990	6 a.m.	1	2	...	...	3	...	3	7	8	...	...	...	...	...	...	...	237	9·9	0·5	2·2	N.	11·55 a.m.
6	29·948	30·000	9 & 10 a.m.	·910	5 p.m.	...	...	...	...	1	8	9	6	...	...	...	...	...	...	...	...	253	10·5	0·6	1·8	N.W.	11·55 a.m.
7	·872	29·980	10 a.m.	·740	6 a.m.	...	...	...	1	2	2	3	2	7	3	1	2	1	...	...	...	311	13·0	0·8	4·5	N.	7·15 a.m.
8	·710	·845	8 a.m.	·665	1 p.m.	...	...	1	5	7	2	2	1	1	4	1	...	...	...	...	...	359	15·0	1·1	4·2	N.W.	7·45 p.m.
9	·961	30·020	9 & 10 p.m.	·885	9 a.m.	...	...	4	5	14	1	...	...	...	...	...	...	...	...	...	...	354	14·8	1·1	6·5	S.W.	9·55 a.m.
10	30·078	·185	8 a.m.	·990	3 p.m.	...	1	...	5	16	...	...	...	...	...	...	...	...	...	...	2	200	8·3	0·4	3·1	W.S.W.	12· 5 p.m.
11	·134	·200	9 a.m.	30·090	4 p.m.	...	...	...	1	8	3	...	2	...	3	5	...	2	...	...	...	164	6·8	0·2	1·1	N.E.	4·20 p.m.
12	·147	·200	8 a.m.	·095	3 p.m.	...	...	...	...	10	4	...	2	1	3	2	1	1	...	...	...	187	7·8	0·3	3·1	N.N.E.	7·35 p.m.
13	·140	·200	9 & 10 a.m.	·095	4 p.m.	...	...	...	...	5	12	...	1	...	...	3	3	...	...	...	...	141	5·9	0·2	0·7	E.N.E.	5· 2 p.m.
14	·209	·300	8 a.m.	·120	2 & 3 p.m.	...	...	1	3	12	8	...	...	...	...	...	...	...	...	...	...	255	10·6	0·6	2·6	W.S.W.	1·25 p.m.
15	·254	·315	8 a.m.	·180	4 p.m.	...	...	...	1	4	13	3	1	2	...	...	...	...	...	...	...	119	5·0	0·1	0·7	W.	1·10 p.m.
16	·250	·325	9 & 10 a.m.	·180	5 & 6 a.m.	2	5	1	...	9	6	...	...	...	...	...	...	...	...	...	1	138	5·8	0·2	1·4	S.S.W.	2·35 p.m.
17	·057	·200	9 a.m.	30·000	4, 5, 6, & 7 a.m.	1	...	...	...	1	2	3	3	4	...	2	1	4	...	1	2	151	6·3	0·2	1·4	E.N.E.	2· 0 p.m.
18	29·917	·010	9 a.m.	29·840	5 p.m.	...	...	...	6	3	...	3	8	4	...	...	...	...	...	...	...	315	13·1	0·9	4·2	W.	5·25 a.m.
19	·991	·040	9 p.m.	·950	4 a.m.	1	1	4	4	7	2	3	...	...	...	...	...	...	...	1	1	200	8·3	0·4	3·6	S.W.	11· 8 a.m.
20	·914	·010	8 a.m.	·825	4 p.m.	...	...	...	2	7	6	6	3	...	...	...	...	...	...	...	...	151	6·3	0·2	1·3	W.	4·25 a.m.
21	30·109	·230	8 a.m.	30·000	1, 2, & 3 p.m.	...	...	...	9	15	...	...	...	...	...	...	...	...	...	...	...	264	11·0	0·6	4·2	S.W.	11·30 a.m.
22	·190	·235	9 a.m.	·160	2, 3, & 4 p.m., & 3 a.m.	...	...	1	1	4	7	...	...	...	...	3	7	1	...	...	...	164	6·8	0·2	2·0	W.	10·10 a.m.
23	·188	·245	8 a.m.	·120	2 & 3 p.m.	...	...	...	...	11	4	...	...	...	...	1	1	1	...	2	4	135	5·6	0·2	0·6	E.N.E.	2·30 p.m.
24	·035	·235	9 a.m.	29·880	8 a.m.	...	...	...	...	2	...	1	4	1	13	3	...	...	...	...	...	339	14·1	1·0	4·5	N.W.	8· 7 a.m.
25	·032	·205	8 a.m.	·880	9, 10, & 11 a.m.	...	...	3	5	7	8	1	...	...	...	...	...	...	...	...	...	434	18·1	1·6	18·6	W.	11·55 a.m.
26	·154	·210	9 & 10 a.m.	30·100	7 a.m.	...	...	...	3	2	5	...	1	1	...	...	6	4	2	...	...	172	7·2	0·3	1·1	E.	4·20 p.m.
27	·039	·110	8 & 9 a.m.	29·970	3 & 5 p.m.	3	1	...	6	12	2	...	...	...	...	...	...	...	...	...	...	226	9·4	0·4	2·0	W.S.W.	1·45 p.m.
28	·042	·125	11 a.m.	·970	6 a.m.	2	1	3	5	4	1	...	...	...	...	...	...	...	5	2	1	128	5·3	0·1	0·6	S.S.W.	10·47 a.m.
29	29·704	29·945	9 a.m.	·565	2 a.m.	...	...	1	4	4	1	1	...	3	1	8	...	...	...	...	1	315	13·1	0·9	7·6	W.S.W.	5·32 a.m.
30	·847	·905	10 p.m., & 1 a.m.	·755	9 a.m.	...	...	5	5	13	1	...	...	...	...	...	...	...	...	...	...	299	12·5	0·8	8·8	W.S.W.	9·25 a.m.
31	·829	30·005	7 a.m.	·695	3 & 4 p.m.	...	...	...	2	18	3	1	...	...	...	...	...	...	...	...	...	335	14·0	1·0	5·8	W.	4·20 p.m.
Sums or Means.	30·065	August, 1st. 30·395	9 & 10 a.m.	August 29th. 29·565	2 a.m.	12	14	24	73	225	120	48	47	41	33	38	23	16	7	6	17	7042	Mean. 9·5	Mean. 0·5			

The self-registering Barometer is photographic, and the Anemometer, mechanical. A set of Robinson's Cups record the velocity from which the pressure in lbs. per square foot, is obtained by the Formula $P = v^2 \times \cdot 005$. The direction of wind is taken at every hour.

Stations.	Distance from Coast in miles.	Height above sea in feet.	Mean of Observations taken at 9 a.m., August, 1871.					Temperature in Shade.				For 24h. previous to 9 a.m.					Remarks.
			Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind. Direction.	Wind. Force. 0·6	Mean. Max.	Mean. Min.	Extreme. Max.	Extreme. Min.	Rain. Total Fall, inches.	Rain. No. of Days.	Rain. Greatest Fall, inches.	Rain. Date.	Evaporation in inches.	
Tenterfield	85	.....	.....	49·8	.....	W.N.W.	1·7	64·8	34·7	73·3	27·4	0·550	4	0·380	9	2·034	Frost during month; cattle dying for want of water
Grafton	23	.....	.....	58·0	.....	W.	0·3	72·9	43·1	87·9	34·0	0·275	4	0·175	9	2·243	Thunderstorm on 8th; want of rain felt.
Bourke	492	.....	.....	57·8	.....	E.N.E.	0·1	70·2	45·3	87·9	35·9	0·130	2	0·080	9	.....	Stormy on 8th; hot wind, 25th.
Narrabri	182	.....	.....	57·6	.....	S.W.	1·5	.....	.....	.....	.....	1·050	5	0·730	9	3·812	Stormy on 17th; very hot on 24th, 25th, and 26th.
Armidale	82	3278	30·255	45·1	88	S.W.	1·3	56·3	33·8	66·2	20·1	1·440	3	1·080	9	2·959	Snowing on the 9th; thunderstorm, 25th.
Port Macquarie	0	.....	.....	56·6	.....	S.W.	1·7	67·2	46·0	76·0	37·7	0·080	1	0·080	9	4·033	Thunderstorm on 8th.
Murrurundi	113	1050	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	...	.....	...	.....	
Cassilis	140	.....	.....	53·2	.....	W.	0·6	69·3	37·0	78·1	29·2	0·860	4	0·640	9	2·672	
Muswellbrook	96	.....	.....	58·1	.....	W.	2·5	73·6	42·6	88·7	38·3	1·110	2	0·660	9	3·112	Cold and frosty on 12th; max. Ther. readings from 18th.
Dubbo	230	.....	.....	.....	.....	S.W.	0·9	61·6	.....	70·9	.....	0·710	5	0·300	7	2·609	Sharp frost during month.
Mudgee	120	.....	.....	46·9	.....	W.	0·8	57·5	36·3	64·9	27·4	1·610	6	0·590	9	2·266	Thunderstorm on 8th; frost on 1st and 2nd.
West Maitland	16	.....	.....	56·2	.....	W.	1·1	68·0	44·4	89·1	37·3	0·590	5	0·330	9	3·896	Frost during month; thunderstorm, 19th; hot wind, 25th.
Hexham	8	.....	.....	52·2	.....	W.	1·6	64·6	39·8	74·3	35·0	0·780	4	0·540	9	3·559	S. squall, thunder and lightning on 18th; S. & hot wind, 25th.
Newcastle	1	112	30·101	56·2	77	N.W.	0·3	67·0	45·4	81·8	40·1	0·750	6	0·490	9	.....	Heavy thunder & lightning, 18th.
Orange	132	2891	.....	43·3	.....	S.	0·7	54·1	32·4	61·1	25·9	1·630	10	0·450	26	1·492	Frosty all the month; thunder showers on 7th, 18th, & 30th; snow on Canobolas on 9th.
Bathurst	100	2333	30·023	46·1	88	W.	0·7	59·7	32·4	71·0	20·0	0·470	3	0·250	26	.....	Sharp frost during month.
Kurrajong	35	1870	.....	49·6	.....	W.	...	58·3	40·8	69·0	35·0	0·520	4	0·300	8	.....	Occasional frost during month.
Woodford	50	2192	30·107	50·9	.....	W.	0·1	56·8	44·9	67·4	39·7	0·470	5	0·140	9	.....	
Parramatta	16	.....	.....	54·5	.....	N.W.	1·4	63·0	46·0	74·0	34·9	0·390	3	0·340	9	3·307	Frosty on the 2nd.
Sydney	5	155	30·120	55·7	69	W.	0·5	65·3	46·0	78·9	39·1	0·467	5	0·360	9	2·559	Thunderstorms on 6th and 18th; hot wind & westerly gale, 25th.
Double Bay	3	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·480	3	0·410	9	.....	
Liverpool	16	.....	.....	49·1	.....	.....	...	60·8	37·3	70·0	30·5	0·225	6	0·180	9	.....	
Wentworth	520	.....	.....	54·2	.....	S.	1·8	66·7	41·6	85·8	30·3	0·290	4	0·160	8	2·957	Severe frost on 19th; squally, 8th, 30th; hot wind, 25th; gale on 29th.
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·040	1	0·040	18	.....	Thunderstorm on 18th.
Cordeaux River	10	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·300	3	0·160	8	.....	Frost during month.
Wollongong	0	.....	.....	55·5	.....	S.W.	1·3	64·3	46·7	77·4	39·7	.....	...	.....	...	4·453	Westerly gale on 26th; no rain during month.
Moss Vale	31	.....	.....	45·7	.....	N.W.	1·1	53·9	37·5	64·4	29·8	0·440	4	0·180	26	.....	Short storm of wind and rain on 31st.
Goulburn	57	2129	30·150	46·4	74	W.	0·0	60·2	32·3	71·0	22·9	0·540	7	0·260	26	1·964	Frost on 2nd and 3rd; thick fog, on 17th.
Shoalnaven (Terrara)	4	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·265	5	0·160	9	.....	
Wagga Wagga	164	.....	.....	.....	.....	W.	1·1	.....	38·9	.....	31·9	1·330	6	0·590	7	1·537	Heavy thunderstorm on 6th.
Cape St. George	0	175	29·996	56·2	86	W.	1·1	65·5	46·8	74·2	40·6	0·503	4	0·368	15	.....	Westerly gales on 30th and 31st.
Queanbeyan	63	.....	.....	40·1	.....	W.	0·0	45·2	34·9	56·2	27·7	0·760	6	0·320	6	1·985	Cold and frosty during month.
Urana	224	.....	.....	43·7	.....	W.N.W.	...	52·0	35·4	59·1	32·1	2·120	7	0·420	18	2·574	Thunderstorm on 18th; max. Ther. readings from 12th.
Deniliquin	278	410	30·207	50·5	86	N.W.	1·1	65·1	35·8	74·1	26·5	0·670	5	0·320	7	.....	N.W. gale on 25th; thunder storm on 29th.
Kiandra	84	4640	30·119	35·7	73	N.W.	0·5	45·5	25·9	55·7	8·3	2·170	15	0·430	18	.....	Snowing during month; thunderstorms on 18th and 25th.
Cooma	47	2637	.....	43·1	.....	S.W.	2·1	58·6	27·6	67·6	17·8	0·370	3	0·210	19	1·440	Frost all month; very severe on 2nd; storms on 8th & 25th.
Albury	163	572	.....	50·2	.....	N.	0·8	62·9	37·5	69·5	30·9	1·290	12	0·530	7	1·566	Thunderstorm on 29th.
Eden	0	107	29·945	52·8	78	S.W.	1·0	60·8	44·7	68·0	41·1	0·690	6	0·260	6	.....	Thunderstorm on 18th; Bar. 29·475 on 29th.

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES

1871

AUGUST

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Barometer

Scale
1 Div. to 1 [inches]

30·5
30·0
29·5

Wind

Scale of Force
1 Div. to 1 [lbs.]

N.
E.
S.
W.
N.
10

Ozone

Scale
1 Div. to a Degree

0

Temperature

Scale
1 Div to 2°

70
60
50

Humidity

Scale
1 Div. to 5 Degrees

Rain

Scale
1 Div. to 1 [inches]

0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

The dark vertical lines represent Force of Wind & Rain.

Lithographed at the Surveyor Generals Office Sydney. Oct^r 1871

Dew on the 1st, 2nd, 3rd, 4th, 12th, 23 and 29th.

METEOROLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORY, SYDNEY

AND AN

ABSTRACT FROM THE COUNTRY STATIONS,

FOR THE

MONTH OF SEPTEMBER, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER

1871.

[*Price, 6d.*] 3*u* 42—71

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY.

LATITUDE 33° 51′ 41″ LONGITUDE 10h 4m 46s

Magnetic Variation 9° 35′ 26″ East.

SEPTEMBER, 1871.

GENERAL ABSTRACT.

BAROMETER .. At 32° Fah.

Highest Reading ...	30·370	... On the 10th, at 8, & 11th, at 9 a.m
Lowest Reading ...	29·690	... On the 7th, at 2 p.m.
Mean Height ...	30·073	

(Being 0·187 greater than that in the same month on an average of the preceding 12 years.)

WIND ..

Greatest Pressure...	10·6 lbs.	... On the 2nd.
Mean Pressure ...	0·7 lbs.	
Number of Days Calm ...	0	
Prevailing Direction ...	W.	

(Prevailing direction during the same month for the preceding 12 years ... W.N.W.)

TEMPERATURE

Highest in the Shade ...	73·6	... On the 12th.
Lowest in the Shade ...	42·4	... On the 4th.
Greatest Range	26·3	... On the 12th.
Highest in the Sun ...	113·9	... On the 12th.
Highest in a Black Box with Glass Top ...	173·0	... On the 29th.
Lowest on the Grass ...	38·5	... On the 4th.
Mean Diurnal Range ...	15·4	
Mean in the Shade ...	58·8	

(Being 0·3 greater than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..

Greatest Amount... ...	99·0	... On the 22nd.
Least	42·0	... On the 9th.
Mean	70·4	

(Being 2·2 greater than that of the same month on an average of the preceding 12 years.)

RAIN ..

Greatest Fall	0·447 inches.	On the 23rd.
Number of Days	7	
Total Fall	0·285 inches.	65 ft. above the ground.
	0·572 inches.	15 inches above the ground.

(Being 1·894 inches less than that of the same month on an average of the preceding 12 years.)

EVAPORATION Total Amount ... ... 3·615 inches.

OZONE .. .. Mean Amount ... ... 4·5

(Being 0·4 less than that in the same month on an average of the preceding 10 years.)

ELECTRICITY .. Number of Days Lightning 4

CLOUDY SKY ..

Mean Amount	4·5
Number of Clear Days ...	7

METEORS .. Number Observed ... 1

REMARKS.

Fine weather continued throughout the month, but rather cloudy from 14th to 23rd; the mean temperature was 0·3 above the average. The total rainfall was only 0·572 inches, of which 0·447 fell on the 23rd, and 0·125 in very light showers, on six days. The rainfall in the coast districts during the month was generally less than 1 inch; in the western districts from 1 to 2 inches; and in the south-western districts, from 1½ to 7 inches—very heavy rain having fallen there between the 18th and 23rd.

SYDNEY, SEPTEMBER, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level.	Wind.		Temperature.									Humidity 0-100.
					Dry.	Wet.	Shade.				Sun.	Grass.	Sea Water. 9 a.m.	
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.		Mean 9.3.9.
1		30·006	W.N.W.	162	58·4	51·8	67·9	50·2	17·7	59·1	106·6	46·2	58·2	63·7
2	In Equat.	29·922	W.	425	56·2	48·7	66·8	44·9	21·9	55·9	110·3	40·1	58·4	59·0
3		30·187	S.	261	53·3	46·6	60·9	44·8	16·1	52·9	99·6	40·3	58·6	60·0
4		·267	W.	128	55·0	50·7	64·2	42·4	21·8	53·3	105·5	38·5	58·4	74·7
5		·321	N.N.W.	72	55·7	53·2	59·5	47·5	12·0	53·5	89·1	44·5	58·6	83·7
6		·223	N.E.	371	61·2	57·2	67·1	48·7	18·4	57·9	105·6	44·7	58·8	77·3
7	Apogee. Last Qr.	29·798	W.	278	65·0	57·1	72·1	55·3	16·8	63·7	106·7	52·2	58·8	59·7
8		30·005	W.N.W.	210	61·1	54·1	69·6	49·3	20·3	59·5	111·0	42·9	59·0	62·3
9	G.N. Dec.	29·903	S.W.	405	59·4	50·8	64·9	52·6	12·3	58·8	103·3	48·1	59·2	56·7
10		30·307	W.	257	55·3	47·8	61·5	45·9	15·6	53·7	101·1	41·8	59·0	58·0
11		·394	N.	243	58·6	54·1	64·2	44·5	19·7	54·4	106·7	41·1	59·2	73·7
12		·202	W.N.W.	129	61·4	55·4	73·6	47·3	26·3	60·5	113·9	43·5	59·4	69·0
13		·097	W.	219	62·3	57·0	69·2	50·4	18·8	59·8	103·6	47·1	60·0	71·7
14		·005	E.	93	64·7	58·1	70·4	54·4	16·0	62·4	109·0	53·7	60·2	67·0
15	New Moon.	·190	E.S.E.	123	62·2	56·9	68·1	50·0	18·1	59·1	112·7	46·1	60·0	70·7
16	In Equat.	·329	E.S.E.	90	60·8	57·9	64·0	56·0	8·0	60·0	80·9	51·6	60·2	82·3
17		·336	N.E.	322	59·2	58·5	65·8	55·9	9·9	60·9	99·1	53·1	61·0	95·0
18		·294	N.E.	452	64·8	59·1	69·5	58·5	11·0	64·0	108·0	55·8	61·4	69·7
19		·261	N.E.	476	62·5	59·1	65·4	60·7	4·7	63·1	86·2	57·8	61·2	79·7
20		·338	N.E.	473	63·2	58·6	66·5	59·9	6·6	63·2	101·6	57·4	61·4	73·7
21	Perigee.	·268	N.N.E.	412	63·7	59·0	67·2	59·1	8·1	63·2	104·6	55·6	61·6	74·0
22	First Qr.	29·975	S.W.	357	61·4	59·5	64·7	57·5	7·2	61·1	81·0	54·1	61·4	88·7
23	G. S. Dec.	30·072	S.S.W.	387	53·0	50·6	56·5	49·6	6·9	53·1	91·2	46·3	61·0	83·3
24		29·988	W.	151	55·7	52·0	66·1	46·4	19·7	56·3	107·6	42·7	61·2	76·0
25		·864	W.	169	59·7	55·2	65·1	50·3	14·8	57·7	109·3	45·5	61·4	74·3
26		30·084	N.W.	162	60·0	55·1	66·1	47·3	18·8	56·7	108·4	44·1	61·6	72·3
27		·027	N.E.	390	64·7	59·8	69·8	49·1	20·7	59·5	108·6	45·6	61·4	73·3
28		29·898	W.	358	64·1	53·0	69·5	59·7	9·8	64·6	108·4	56·1	61·6	47·3
29	Full. In Equat.	30·113	N.	170	59·4	52·0	68·7	46·9	21·8	57·8	109·9	42·3	61·4	60·0
30		·024	W.	163	63·2	54·0	71·1	47·8	23·3	59·5	112·4	43·6	61·6	55·0
				Sum.										
Means	.....	30·123	W.	7908	60·2	54·8	66·5	51·1	15·4	58·8	103·4	47·4	60·2	70·4

Observations of Standard Barometer taken at 9 a.m., and corrected to 32° Fah. and Mean Sea Level.
The Barometer at 9 a.m. reads 0·041 above the true mean for the day.

SYDNEY, SEPTEMBER, 1871.

Date.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
1	·0	0·102	4·0	3·5	3·8	0·0	Fine and clear.
2	·0	0·164	4·0	5·0	4·5	2·7	Heavy clouds N. & N.W. during afternoon, from 2·45 p.m.; partial rainbow N.N.E. at 3·30 p.m.; lightning N.E. to S. during evening.
3	·0	0·147	...	...	2·8	0·0	Fine; cool dry wind, and bank of clouds E. at 9 a.m.
4	·0	0·085	4·5	5·0	4·8	0·0	Fine, but smoky looking.
5	·0	0·026	4·5	5·5	5·0	7·0	Cloudy and dull until 7·30 p.m. Showers of light drizly rain at 1·35 p.m. and 3 p.m.
6	0·002	0·102	5·5	5·5	5·5	1·7	Fine, but smoky looking. Clouds were fast forming at 9·30 a.m., but soon cleared again.
7	·0	0·108	5·0	4·5	4·8	6·7	Cloudy until 6 p.m. Showers at 10·30 a.m. and 11·15 a.m.; lightning E.&E.S.E. all even.
8	·0	0·160	4·0	4·5	4·3	0·0	Fine; morning clear, and very smoky-looking at 3 p.m.; lightning E.S.E. after 10 p.m.
9	·0	0·166	3·0	5·0	4·0	1·0	Cloudy afternoon until evening, rest of day fine; clouds along the coast on horizon at 9 p.m.
10	·0	0·138	...	...	3·0	7·0	Cloudy during the forenoon.
11	·0	0·104	4·0	5·0	4·5	0·0	Fine; very smoky looking.
12	0·003	0·062	3·5	5·5	4·5	0·3	Fine, smoky; evening hazy to W. Luminous body S.E. at 4·30 p.m., 70 deg. altitude, about as large as Venus, and lasted about 30 sec.
13	·0	0·114	4·0	4·5	4·3	5·7	Fine, from 11·30 a.m. until 4 p.m.
14	·0	0·110	4·0	5·0	4·5	3·3	Cloudy and dull until about 1·30 p.m.; light rain between 6 a.m. and 7 a.m.; hazy to W. in the evening. Dew fell in the night.
15	0·004	0·097	3·0	4·0	3·5	2·3	Cloudy in the evening after 8 p.m.; smoky looking in the forenoon.
16	·0	0·035	4·5	6·5	5·5	9·7	Cloudy day; light rain began at 12·50 p.m. Light showers at intervals during the rest of the day.
17	0·056	0·090	...	...	3·8	10·0	Cloudy day; morning dull and dropping at 9·45 a.m. Evening fine, turned cloudy again at 10 p.m.
18	0·004	0·154	4·5	5·5	5·0	10·0	Cloudy and dull; shower during the night.
19	·0	0·058	5·0	5·5	5·3	10·0	Cloudy and dull like rain; partial clearing after 7 p.m.
20	·0	0·103	3·5	5·5	4·5	10·0	Cloudy; dropping rain between 7·30 a.m. and 9 a.m.; heavy shower at 10·20 a.m.
21	0·001	0·093	4·0	9·0	6·5	9·7	Cloudy; at 9 p.m. looked like rain. Lunar ring during evening about 50 deg. diameter.
22	0·005	0·183	6·5	9·0	7·8	10·0	Cloudy; raining lightly nearly all day. A bow visible at 11·17 p.m. from S.W. to E., followed by a southerly gale.
23	0·447	0·079	4·0	5·0	4·5	6·7	Cloudy until about 8·30 p.m., and cold; forenoon showery.
24	0·035	0·122	...	...	2·8	0·0	Afternoon and evening cloudy; thunder shower 7·10 p.m. Thunder E., with lightning at 7·15 p.m., which lasted only a few minutes.
25	0·010	0·108	3·0	6·0	4·5	5·3	Cloudy and fine alternately, throughout the day.
26	0·003	0·130	3·0	4·5	3·8	0·0	Fine; smoky looking during the day; evening clear.
27	0·002	0·213	4·5	5·0	4·8	3·3	Forenoon warm and smoky looking; evening cloudy.
28	·0	0·242	2·0	5·0	3·5	0·7	Dry wind throughout day; evening clear.
29	·0	0·164	3·0	4·5	3·8	1·3	Forenoon smoky to S. & W. Light clouds formed at 9 p.m., and had cleared off again by 10 p.m.
30	·0	0·156	2·5	5·0	3·8	10·0	Cloudy; partial clearing of clouds in forenoon until after 12 p.m. Raining lightly during evening, from 7·35 p.m.
Means	Sum. 0·572	Sum. 3·615	4·0	5·3	4·5	4·5	

Cloudy sky taken at 9 a.m., 3 p.m., and 9 p.m. Amount of Rain, Dew, and Evaporation recorded at 9 a.m., for the previous 24 hours.
Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.
Dew on the 12th, 15th, 26th, and 27th.

SYDNEY, SEPTEMBER, 1871.

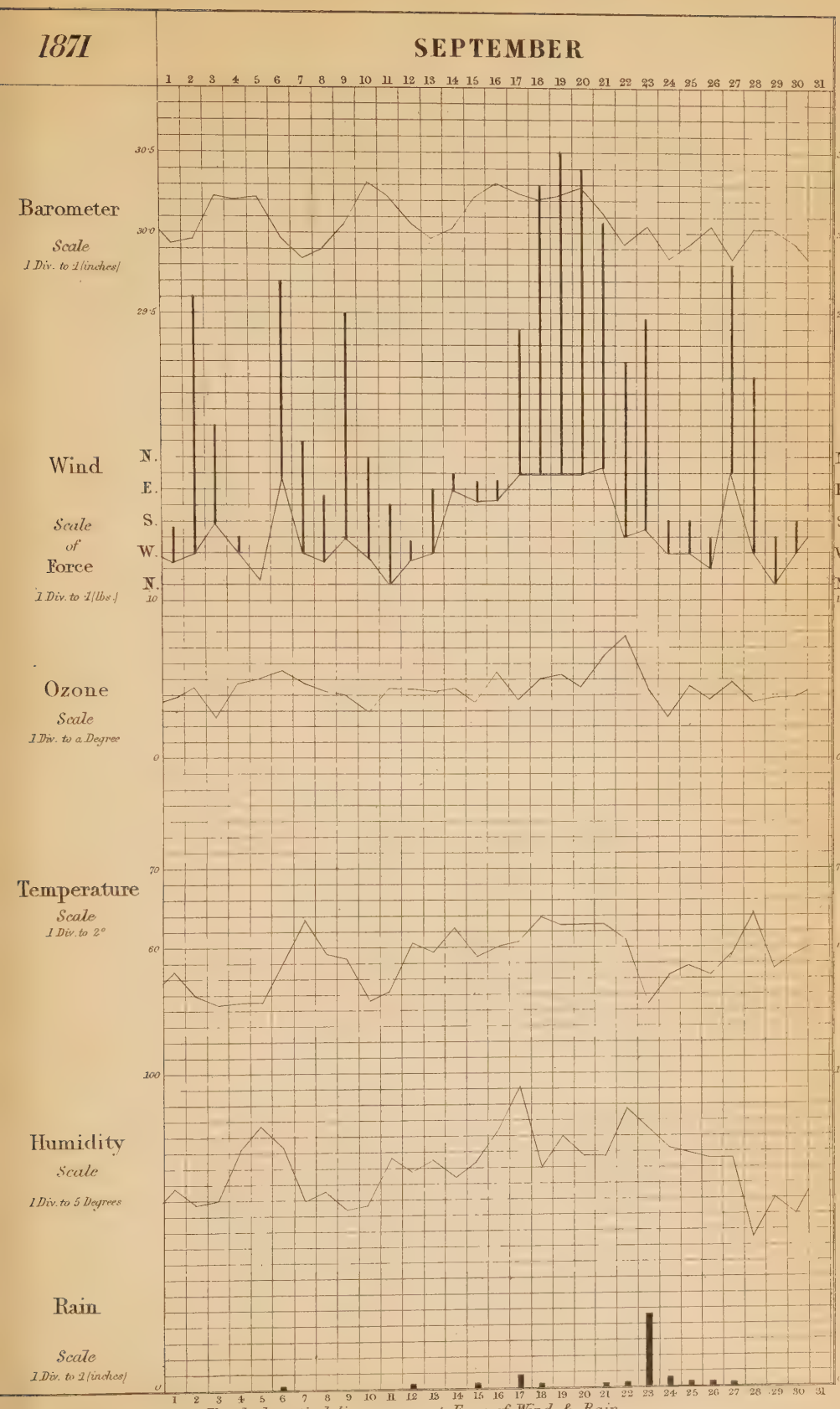
Date.	Self-registering Barometer at 32°.					Self-registering Anemometer.																		
	Mean.	Max.	Hour.	Min.	Hour.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure. lbs.	Greatest Pressure. Direction of Wind. Time.	
1	29·947	30·000	9, 10, & 11 a.m.	29·890	3 a.m.	...	...	...	1	2	12	4	...	1	1	2	...	1	...	...	...	162	6·8	0·2	3·1	W.S.W.	9·23 a.m.
2	·984	·165	8 a.m.	·835	2 & 3 p.m.	1	1	4	8	9	1	...	...	...	...	...	...	...	...	...	...	425	17·7	1·6	10·6	W.S.W.	4·45 p.m.
3	30·213	·265	8 a.m.	30·160	2 p.m.	8	2	1	1	4	8	...	...	...	...	...	...	...	...	...	...	261	10·9	0·6	4·2	S.S.W.	11· 0 a.m.
4	·202	·300	8 a.m.	·115	3 p.m.	1	...	4	1	9	...	...	...	...	...	6	3	...	...	...	...	128	5·3	0·1	0·7	E.N.E.	4· 5 p.m.
5	·241	·305	10 a.m.	·195	4 & 5 a.m.	...	...	...	1	1	1	7	12	1	1	...	...	...	...	...	...	72	3·0	0·0	0·2	N.	7·40 p.m.
6	29·989	·210	9 a.m.	29·780	8 a.m.	...	...	...	...	...	...	1	...	3	5	9	6	...	...	...	...	371	15·5	1·2	6·5	N.N.E.	5·50 p.m.
7	·858	30·000	8 a.m.	·690	2 p.m.	...	...	...	1	7	7	6	...	3	...	...	...	...	...	...	...	278	11·6	0·7	7·6	N.W.	2·15 p.m.
8	·909	·005	9 a.m.	·835	5 a.m.	1	...	...	2	...	7	6	1	...	...	1	3	3	...	...	...	210	8·8	0·4	2·0	N.W.	4· 0 a.m.
9	30·075	·270	8 a.m.	·900	9 & 11 a.m.	2	1	12	8	1	...	...	...	...	...	...	...	...	...	...	...	405	16·9	1·4	9·7	W.S.W.	11· 0 a.m.
10	·304	·370	8 a.m.	30·260	3 & 4 p.m.	5	3	1	1	9	...	...	...	...	...	...	...	...	...	...	5	257	10·7	0·6	3·1	S.	3·30 p.m.
11	·222	·370	9 a.m.	·165	3 & 4 p.m.	...	...	...	...	4	4	...	4	4	1	3	3	1	...	..	...	243	10·1	0·5	3·1	N.	9· 5 p.m.
12	·084	·185	9 a.m.	·035	4 p.m.	1	...	...	...	4	8	1	1	...	...	1	8	...	...	...	...	129	5·4	0·1	1·1	E.N.E.	5· 0 p.m.
13	29·985	·090	9 a.m.	29·930	4 p.m.	...	...	...	1	6	3	2	...	1	5	1	2	3	...	...	...	219	9·1	0·4	2·4	N.	7· 9 p.m.
14	30·018	·145	8 a.m.	·925	4 p.m.	2	...	...	...	8	...	1	...	...	...	...	...	9	3	1	...	93	3·9	0·1	0·6	E.	5·13 p.m.
15	·218	·300	8 a.m.	30·145	3 & 4 p.m.	1	1	4	...	...	1	...	...	...	...	...	...	2	13	...	2	123	5·1	0·1	1·4	E.	4·10 p.m.
16	·305	·350	9 & 10 p.m.	·270	2 & 3 p.m.	...	...	1	...	...	...	...	...	...	...	...	...	...	15	7	1	90	3·8	0·1	0·6	S.E.	1·21 p.m.
17	·266	·315	9 & 10 a.m.	·230	3 a.m.	...	...	...	...	...	...	...	...	...	3	9	5	...	...	1	...	322	13·4	0·9	4·2	N.N.E.	8·30 a.m.
18	·218	·280	9 a.m.	·195	4 & 6 p.m. 3 & 4 a.m.	...	...	...	...	...	...	...	1	7	7	9	...	...	...	...	...	452	18·8	1·8	5·8	N.E.	1·33 p.m.
19	·250	·310	8 a.m.	·210	3 p.m.	...	...	...	...	...	...	...	...	3	20	1	...	...	...	...	...	476	19·8	2·0	4·5	N.E.	2·30 a.m.
20	·265	·325	10 & 11 a.m.	·230	4 & 5 a.m.	...	...	...	...	...	...	...	...	1	20	3	...	...	...	...	...	473	19·7	1·9	7·2	N.E.	5· 5 p.m.
21	·105	·255	9 a.m.	29·995	7 a.m.	...	...	...	...	...	...	...	1	10	9	4	...	...	...	...	...	412	17·2	1·5	5·1	N.N.E.	6·25 p.m.
22	29·911	·045	8 a.m.	·830	4 & 7 p.m.	...	3	5	1	1	...	...	...	3	3	2	3	1	...	...	2	357	14·9	1·1	6·8	S.S.W.	11·45 p.m.
23	30·043	·080	9 p.m.	30·000	4 to 8 a.m.	...	8	4	5	7	...	...	...	...	...	...	...	...	...	...	...	387	16·1	1·3	6·1	S.S.W.	4·36 p.m.
24	29·838	·990	9 a.m.	29·785	5 p.m.	...	...	...	...	8	1	3	...	6	...	...	1	4	...	...	1	151	6·3	0·2	1·1	E.N.E.	3·40 p.m.
25	22·924	·065	8 a.m.	·830	2 & 3 p.m.	4	...	1	1	10	...	...	...	...	...	...	...	...	...	7	1	169	7·0	0·2	2·4	S.	9·50 a.m.
26	30·059	·095	10, 11, & 12 p.m.	30·030	3, 4, & 5 p.m.	...	...	...	...	2	...	6	5	1	2	2	3	2	1	...	...	162	6·8	0·2	2·0	N.N.E.	8·43 p.m.
27	29·837	·030	9 a.m.	29·735	3 & 4 a.m.	...	...	2	3	2	...	2	2	1	...	9	1	2	...	...	...	390	16·3	1·3	7·2	N.E.	5·35 p.m.
28	30·010	·100	7 & 8 a.m.	·900	11 a.m.	...	...	...	8	12	4	...	...	...	...	...	...	...	...	...	...	358	14·9	1·1	6·5	W.S.W.	12·50 p.m.
29	·008	·105	9 a.m.	·960	4 p.m.	...	...	...	2	2	1	...	2	6	3	4	3	...	...	1	...	170	7·1	0·3	2·2	N.E.	5· 7 p.m.
30	29·912	30·020	9 a.m.	·865	2 a.m.	2	...	1	...	8	1	...	...	...	3	4	3	1	1	...	...	163	6·8	0·2	2·0	N.N.E.	8· 0 p.m.
Sums or Means.	30·073	30·370	10th at 8 a.m. 11th at 9 a.m.	Sept. 7th. 29·690	2 p.m.	28	19	40	45	116	59	39	28	38	48	111	52	29	33	17	12	Sum 7908	Mean. 11·0	Mean. 0·7			

The self-registering Barometer is photographic, and the Anemometer, mechanical. A set of Robinson's Cups record the velocity from which the pressure in lbs. per square foot, is obtained by the Formula $P = v^2 \times \cdot 005$. The direction of wind is taken at every hour.

Stations.	Distance from Coast in miles.	Height above sea in feet.	Mean of Observations taken at 9 a.m., August, 1871.					Temperature in Shade.				For 24h. previous to 9 a.m.					Remarks.
			Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind.						Rain.				Evaporation in inches.	
						Direction.	Force. 0-6	Mean. Max.	Mean. Min.	Extreme. Max.	Extreme. Min.	Total Fall, inches.	No. of Days.	Greatest Fall, inches.	Date.		
Tenterfield	85	.....	.....	53·8	.....	W.	1·9	67·5	40·1	76·7	28·3	0·370	5	0·220	23	2·438	Frost on 2nd; rain wanted badly.
Grafton	23	.....	.....	61·6	.....	W.	0·5	74·1	49·0	83·7	37·7	0·405	2	0·345	24	2·874	
Bourke	492	.....	.....	62·2	.....	N.	1·0	73·3	51·0	86·9	38·4	1·880	7	0·980	19	.....	Thunderstorm on 6th; very hot on 13th and 16th.
Narrabri	182	.....	.....	65·2	.....	N.E.	2·0	.....	.....	.....	.....	0·320	4	0·120	23	5·600	
Armidale	82	3278	30·224	51·9	72·0	W.	1·2	62·2	41·5	70·2	28·1	0·350	1	0·350	23	3·043	
Port Macquarie	0	.....	.....	60·7	.....	S.W.	1·8	70·1	51·3	79·2	42·7	0·420	4	0·250	23	4·925	Squally, 19th, 20th, and 23rd.
Murrurundi	113	1050	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	...	.....	...	.....	
Cassilis	140	.....	.....	58·2	.....	N.	0·0	73·7	42·7	80·1	32·2	0·510	4	0·210	22	1·908	
Muswellbrook	96	.....	.....	60·1	.....	N.W.	2·5	69·8	50·3	77·7	40·3	0·138	1	0·138	23	3·901	Very changeable and dry.
Dubbo	230	.....	.....	.....	.....	S.W.	0·9	67·5	.....	74·9	.....	1·880	4	0·980	23	5·021	
Mudgee	120	.....	.....	53·6	.....	W.	0·8	64·1	43·0	72·1	30·5	1·980	5	1·010	23	2·714	
West Maitland	16	.....	.....	59·0	.....	W.	1·0	70·4	47·6	77·2	38·3	0·540	1	0·540	23	4·872	
Lambton	7	.....	.....	58·5	.....	W.	1·3	70·2	46·8	82·3	39·0	0·660	2	0·600	23	4·267	
Newcastle	1	112	30·056	60·3	74·0	N.W.	0·2	68·8	51·7	77·3	42·3	0·890	3	0·840	23	.....	
Orange	132	2891	.....	48·7	.....	S.	1·8	59·1	38·2	67·2	26·0	2·110	8	0·820	23	2·524	Thunderstorm, 7th; frost, 29th.
Bathurst	100	2200	29·946	51·9	82·0	E.	1·3	67·6	36·1	76·0	21·0	1·080	3	0·660	23	.....	
Kurrajong	35	1870	.....	52·0	.....	W.N.W.	...	60·1	43·9	70·0	35·0	1·000	2	0·900	23	.....	Frost on 10th and 11th.
Woodford	50	2192	30·170	53·6	.....	W.	0·1	59·3	47·9	67·4	40·7	1·290	7	0·950	23	.....	
Parramatta	16	.....	.....	57·7	.....	N.W.	1·1	66·4	49·0	76·7	38·4	0·930	4	0·890	23	3·951	Lunar rainbow on 30th at 7·30 p.m
Sydney	5	155	30·123	58·8	70·4	W.	0·7	66·5	51·1	73·6	42·4	0·572	7	0·447	23	3·615	
Double Bay	3	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·150	3	0·100	17	.....	Return for first 18 days of month only.
Liverpool	16	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	...	.....	...	.....	
Wentworth	520	.....	.....	58·7	.....	S.	2·3	70·3	47·1	83·3	37·3	0·520	8	0·150	21	4·231	Hot wind, gale, thunderstorm on 7th; thunderstorms, 13th, 18th, and 19th.
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·740	3	0·700	23	.....	
Cordeaux River	10	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·810	4	0·490	23	.....	
Young	148	.....	.....	54·2	.....	N.W.	1·2	67·3	41·0	74·1	29·0	2·980	8	0·800	20	3·463	Heavy westerly squall on 27th.
Wollongong	0	.....	.....	58·7	.....	E.	1·8	66·2	51·1	70·9	41·4	0·630	2	0·520	23	4·186	
Moss Vale	31	.....	.....	51·2	.....	N.W.	1·1	59·3	43·1	69·4	29·8	1·000	5	0·670	23	.....	
Goulburn	57	2129	30·092	51·8	69·0	W.	1·2	64·6	39·0	74·8	25·7	1·650	7	0·890	23	2·530	Hot wind, 15th; S. gale, 23rd and 24th; W. gale, 29th.
Shoalhaven (Terrara)	0	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	0·360	4	0·290	23	.....	Frost on 3rd, 4th, 12th, and 15th; thunderstorm, 6th and 18th
Wagga Wagga	164	.....	.....	.....	.....	W.	1·2	.....	42·6	.....	32·9	6·040	8	2·080	19	1·450	Observer away on duty from 18th to 22nd, when rain fell; stormy on 6th, 16th, and 17th.
Cape St. George	0	175	30·013	57·7	80·0	N.E.	1·3	64·3	51·1	74·2	39·6	0·265	5	0·140	23	.....	
Queanbeyan	63	.....	.....	47·4	.....	W.N.W.	0·4	53·0	41·7	59·2	29·7	1·440	7	0·540	20	2·545	Heavy N.W. gale and thunderstorm on 16th; high wind on 27th.
Urana	224	.....	.....	48·8	.....	W.	...	54·1	43·4	65·1	33·1	3·500	...	.....	...	1·968	7·600 inches snow fell during month; thunder and hailstorm 7th.
Deniliquin	278	410	30·196	53·5	75·0	W.	1·7	69·3	37·6	80·1	29·5	2·870	6	1·140	22	.....	Frost during month; thunderstorms, 7th, 9th, 18th and 23rd.
Kiandra	84	4640	30·067	40·3	76·0	N.W.	0·7	51·3	29·2	61·4	15·3	7·010	14	1·100	19	.....	Thunderstorm, 6th and 17th.
Cooma	47	2637	.....	49·6	.....	S.W.	2·3	63·6	35·5	72·6	19·8	1·410	6	0·600	20	.....	Heavy squalls on 2nd, 4th, and 9th; Strong gale, 7th.
Albury	163	572	.....	53·6	.....	S.W.	0·7	67·8	39·3	75·5	29·9	6·820	10	2·600	19	2·425	
Eden	0	107	29·989	56·7	68·0	S.W.	1·1	63·8	49·5	73·0	44·1	1·530	12	0·400	20	.....	

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES



The dark vertical lines represent Force of Wind & Rain.

Lithographed at the Surveyor Generals Office, Sydney, Oct^r 1871

Dew on the 12^th, 15^th, 26^th and 27^th

METEOROLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORY, SYDNEY

AND AN

ABSTRACT FROM THE COUNTRY STATIONS,

FOR THE

MONTH OF OCTOBER, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER

1871.

[*Price*, 6*d*.] 3*u* 44—71

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY.

LATITUDE 33° 51′ 41″ LONGITUDE 10h 4m 46s

Magnetic Variation 9° 35′ 26″ East.

OCTOBER, 1871.

GENERAL ABSTRACT.

BAROMETER .. At 32° Fah.	Highest Reading ...	30·420	... On the 18th, at 9 a.m.
	Lowest Reading ...	29·375	... On the 5th, at 3 and 5 p.m.
	Mean Height ...	30·015	

(Being 0·193 greater than that in the same month on an average of the preceding 12 years.)

WIND	Greatest Pressure...	33·6 lbs.	... On the 12th.
	Mean Pressure ...	1·0 lbs.	
	Number of Days Calm ...	0	
	Prevailing Direction ...	E.N.E.	

(Prevailing direction during the same month for the preceding 12 years ... N.E.)

TEMPERATURE	Highest in the Shade ...	85·6	... On the 12th.
	Lowest in the Shade ...	43·1	... On the 3rd.
	Greatest Range	30·3	... On the 11th.
	Highest in the Sun ...	120·0	... On the 11th and 12th.
	Highest in a Black Box with Glass Top	185·0	... On the 12th.
	Lowest on the Grass ...	39·0	... On the 3rd.
	Mean Diurnal Range ...	14·8	
	Mean in the Shade ...	60·6	

(Being 3·1 less than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..	Greatest Amount... ...	96·0	... On the 9th and 16th.
	Least	31·0	... On the 12th.
	Mean	70·8	

(Being 3·8 greater than that of the same month on an average of the preceding 12 years.)

RAIN	Greatest Fall	0·922 inches.	On the 8th.
	Number of Days	19	
	Total Fall	2·446 inches.	65 ft. above the ground.
		3·468 inches.	15 inches above the ground.

(Being 1·249 inches greater than that of the same month on an average of the preceding 12 years.)

EVAPORATION Total Amount ... ... 4·189 inches.

OZONE .. .. Mean Amount ... ... 4·5

(Being 0·6 less than that in the same month on an average of the preceding 11 years.)

ELECTRICITY .. Number of Days Lightning 7

CLOUDY SKY ..	Mean Amount	6·1
	Number of Clear Days ...	1

METEORS .. Number Observed ... 2

REMARKS.

The Barometer was 0·193 higher than the average of this month, and the temperature 3°·1 below the average. Moderate rains fell all over the Colony, especially the Northern and Coast Districts. On the 15th the Aurora was seen at Parramatta, and at Shoalhaven on the 16th.

SYDNEY, OCTOBER, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level.	Wind.		Temperature.									Humidity 0-100.
					Dry.	Wet.	Shade.				Sun.	Grass.	Sea Water. 9 a.m.	
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.		Mean 9.3.9.
1		29·872	S.S.W.	318	64·4	58·2	68·7	52·5	16·2	60·6	109·9	47·5	61·4	67·0
2		·744	S.W.	564	49·3	46·2	53·7	45·8	7·9	49·8	89·0	40·4	61·2	79·0
3		30·007	W.	343	54·7	49·0	59·4	43·1	16·3	51·3	99·3	39·0	61·4	66·0
4		·080	N.N.E.	332	58·1	52·9	61·8	46·8	15·0	54·3	105·5	43·1	61·6	69·7
5	Apogee.	29·710	N.W.	443	60·5	56·0	72·1	54·2	17·9	63·2	103·1	50·7	61·4	75·0
6		·539	W.S.W.	627	58·2	50·5	66·8	51·7	15·1	59·3	107·1	46·9	61·6	60·0
7	G.N. Dec. Last Qr.	·609	S.S.W.	636	53·7	51·8	59·9	50·3	9·6	55·1	89·0	46·1	61·4	87·0
8		30·022	S.S.W.	410	55·5	51·7	60·0	49·9	10·1	55·0	100·9	45·6	61·6	76·0
9		·321	E.N.E.	153	57·0	54·1	62·5	50·3	12·2	56·4	106·0	47·1	61·0	82·0
10		·280	N.E.	280	61·5	56·6	66·4	49·4	17·0	57·9	106·4	43·4	61·2	72·3
11		·012	N.W.	201	69·8	61·0	81·2	50·9	30·3	66·1	120·0	46·5	61·4	58·3
12		29·800	W.	428	73·9	59·7	85·6	57·9	27·7	71·8	120·0	51·1	61·2	43·3
13		30·067	N.N.E.	214	64·9	59·5	67·7	57·2	10·5	62·5	107·2	50·8	61·2	71·0
14	In Equat. New Moon.	·056	N.N.W.	306	66·7	63·0	80·9	53·2	27·7	67·1	110·9	49·7	61·4	78·7
15		29·885	S.	260	79·8	63·3	83·1	63·4	19·7	73·3	118·0	57·3	62·0	38·0
16		30·024	E.N.E.	260	63·1	61·2	65·0	60·9	4·1	63·0	74·5	58·3	62·4	88·3
17	Perigee.	·111	S.	351	56·7	50·2	61·0	51·6	9·4	56·3	101·9	48·6	62·2	63·3
18		·434	N.E.	311	60·5	53·6	64·7	50·7	14·0	57·7	105·8	46·1	62·4	62·3
19		·226	S.E.	272	63·5	58·6	74·8	49·9	24·9	62·4	115·9	45·0	62·6	72·7
20	G. S. Dec.	·406	E.N.E.	168	60·8	55·4	64·6	57·2	7·4	60·9	104·0	53·3	62·4	69·3
21	First Qr.	·373	N.	258	62·3	55·9	66·7	54·5	12·2	60·6	107·2	51·8	62·6	65·7
22		·263	N.N.E.	241	66·1	60·2	68·7	50·9	17·8	59·8	109·8	47·1	62·4	68·0
23		·253	N.E.	348	65·5	62·0	69·7	57·7	12·0	63·7	113·0	52·2	62·6	79·3
24		·158	N.N.E.	252	67·0	63·0	69·8	59·5	10·3	64·7	109·4	55·4	62·8	77·3
25		29·969	S.	365	67·3	61·9	78·1	60·5	17·6	69·3	118·8	54·5	63·6	73·0
26	In Equat.	30·069	S.	263	57·1	54·5	60·6	56·2	4·4	58·4	76·3	54·4	63·4	82·7
27		·077	S.E.	158	60·3	55·9	64·1	50·5	13·6	57·3	107·8	46·1	63·6	74·0
28	Full Moon.	·062	S.S.E.	187	60·1	56·5	64·8	53·5	11·3	59·2	108·0	49·1	63·8	78·0
29		·123	E.	109	59·6	56·3	65·0	53·9	11·1	59·5	107·8	50·2	63·8	79·0
30		·150	N.N.E.	208	62·6	57·1	67·0	53·6	13·4	60·3	108·0	47·8	64·0	69·7
31		·122	N.	312	65·5	59·5	74·4	50·9	23·5	62·7	109·8	46·3	64·2	68·0
				Sum.										
Means	.....	30·059	E.N.E.	9578	62·1	56·6	68·0	53·2	14·8	60·6	105·5	48·8	62·3	70·8

Observations of Standard Barometer taken at 9 a.m., and corrected to 32° Fah. and Mean Sea Level.
The Barometer at 9 a.m. reads 0·037 above the true mean for the day.

SYDNEY, OCTOBER, 1871.

TE.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
1	0·020	0·156	...	...	4·5	5·0	Forenoon very warm. A succession of thunderstorms at intervals from 2·20 p.m. Lightning, N., S.W., and E., the whole evening.
2	0·555	0·100	4·0	6·5	5·3	6·7	Cloudy and showery until 7 p.m. Cold throughout the day.
3	0·021	0·190	4·0	5·0	4·5	0·7	Fine, cool; strong dry wind all forenoon.
4	·0	0·144	4·0	5·0	4·5	5·0	Cloudy and fine alternately throughout the day; strong dry wind all evening.
5	0·136	0·143	5·5	4·5	5·0	6·3	Thunderstorms at 7·52 a.m. and 2·35 p.m., with heavy showers. Lightning S.E. and E. all evening. Evening fine.
6	0·013	0·233	4·0	4·5	4·3	7·7	Morning fine. Afternoon and evening stormy and raining.
7	0·100	.....	8·5	6·5	7·5	10·0	Cloudy, stormy, and raining during the day; rain began at 9·27 a.m.
8	0·922	0·120	...	...	4·8	9·0	Cloudy and showery during the day and night; heavy showers after 10·45 p.m.
9	0·394	0 047	5·0	6·0	5·5	9·0	Evening fine and clear; raining in the morning; shower between 11 a.m. and 12 p.m.; cloudy again at 9 p.m.
10	0·015	0·161	4·0	5·0	4·5	0·0	Fine during the day, and smoky looking.
11	0·002	0·221	2·0	3·5	2·8	1·7	Fine, very warm. Brilliant meteor observed at 10·6 p.m., N.W., appeared larger than Venus.
12	·0	0·298	2·0	5·0	3·5	5·3	Cloudy after 1 p.m.; hot wind during day; afternoon and evening stormy; clouds cleared about 9 p.m.
13	·0	0·134	4·0	4·5	4·3	4·3	Forenoon cloudy until about 11 30 a.m.; lightning, N.E. and E., all evening; dew fell in the night.
14	0·002	0·190	5·0	4·5	4·8	9·0	Evening fine until about 8 p.m.; in the afternoon the clouds were very low, standing on the cliffs between the City and Heads.
15	·0	0·166	...	...	2·5	10·0	Cloudy, dull, and very warm all day.
16	0·002	.....	6·0	8·0	7·0	10·0	Cloudy, dull, and showery all day; clouds to S. very low all evening.
17	0·401	0·138	4·5	5·0	4·8	5·0	Cloudy until 2·30 p.m.; raining in the morning till 7·45 a.m., and stormy; afternoon and evening fine and clear.
18	·0	0·210	3·0	5·0	4·0	0·7	Morning cloudy until 7 a.m.; afternoon and evening cool; light dew fell in the night.
19	·0	0·166	3·5	5·0	4·3	9·7	Cloudy between 7 p.m. and 8 p.m.; clouds cleared, but soon turned cloudy again.
20	·0	0·071	4·5	5·0	4·8	10 0	Cloudy; shower at 9·15 a.m.; clouds broken in the evening.
21	0·014	0·188	4·0	5·0	4·5	2·0	Cloudy until 10 a.m. Meteor observed to W. at 10·5 p.m.
22	0·002	0·168	...	...	2·5	1·0	Cloudy after 10 a.m.; about 2 p.m. looked like thunderstorm coming up from W.S.W., but the clouds blew over.
23	·0	0·216	3·5	6·5	5·0	5·0	Cloudy until 10·30 a.m.; lightning S.S.W. from 9 p.m.; violent thunder-storm commencing at midnight until 2 a.m.; heavy shower about 1 35 a m.
24	0·190	0·163	4·0	4·5	4·3	6·3	Fine until about 3 p.m; thunder-clouds S.W. during day; thunder S.W. at 8·25 p.m.; lightning at 8·5 p.m. all round; storm over at 10 p.m.
25	0·007	.....	3·5	9·0	6·3	10·0	Cloudy, dull; southerly gale at 6·35 p.m.; light showers and dropping rain during evening; lightning at 10·18 p.m.
26	0·218	.....	5·5	4·5	5·0	10·0	Cloudy; raining nearly the whole forenoon; afternoon and evening cloudy and dull; light rain about 6 p.m.
27	0·154	0·064	3·0	5·0	4·0	9·7	Fine from 3·30 p.m. until 7·30 p.m.; light shower, 9·14 a.m.; dropping rain, 9·50 p m.
28	0·140	0·099	3·0	5·0	4·0	7·3	Cloudy, very dull; heavy shower, 4·15 a.m.; Evening fine; cloudy again, with light showers, from 7 p.m.
29	0·105	0·045	...	...	2·5	10·0	Morning fine until 8 a.m.; shower at 3 a.m., and again between 9 and 11·30 a.m.; clouds cleared a little while in afternoon.
30	0·023	0·148	4·0	5·0	4·5	2·0	Morning cloudy and very warm, rest of day fine; lightning S. about 7 40 p.m.
31	0·002	0·210	2·5	4·5	3·5	0·7	Fine until 6 p m.; morning very warm like thunderstorm coming up from S.W. but clouds cleared away to the coast.
	Sum.	Sum					
eans	3·468	4·189	4·1	5·3	4·5	6·1	

)udy sky taken at 9 a m., 3 p.m., and 9 p.m. Amount of Rain, Dew, and Evaporation recorded at 9 a m., for the previous 24 hours.

Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.

Dew on the 11th, 14th, 22nd, and 31st.

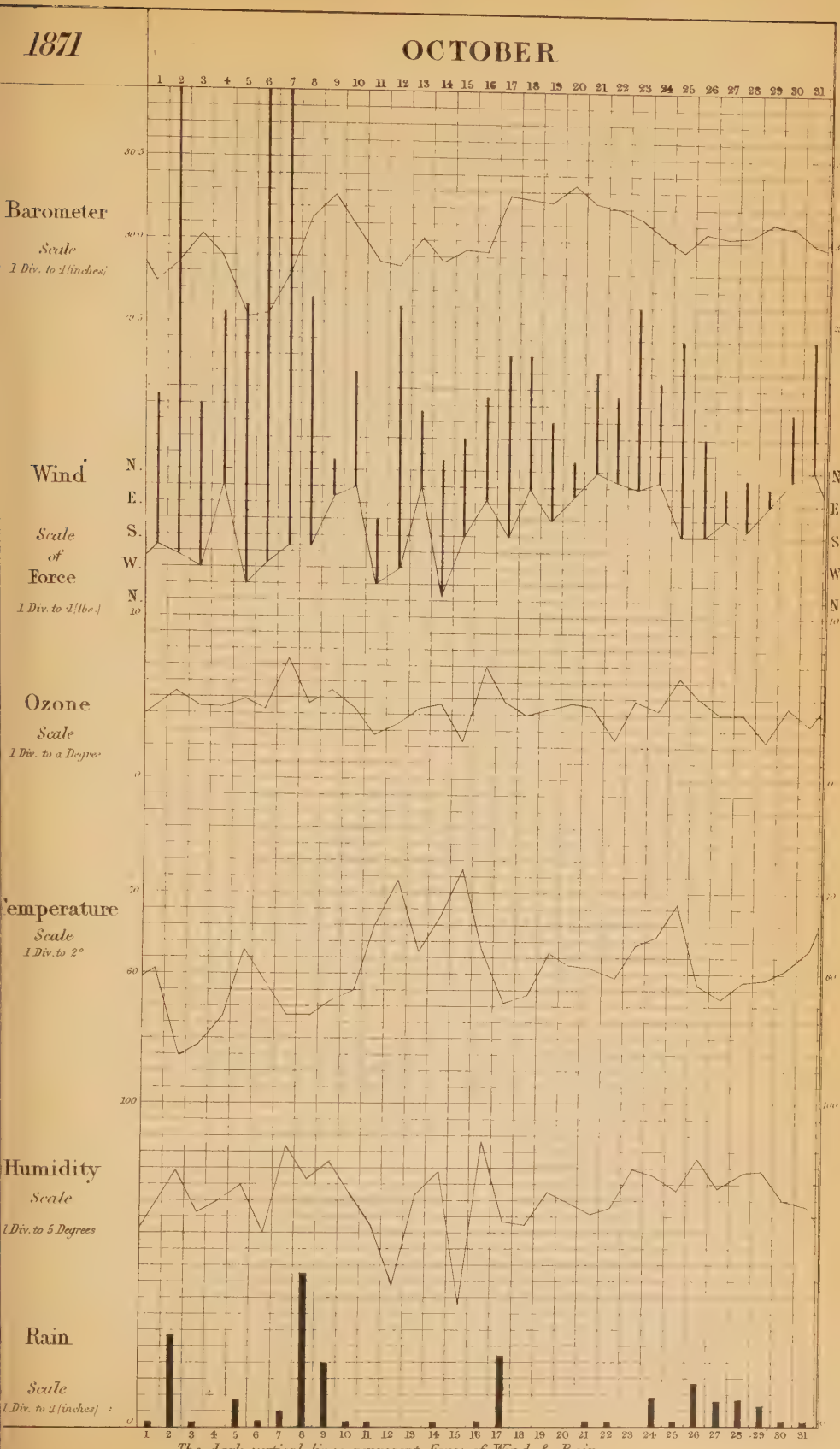
SYDNEY, OCTOBER, 1871.

Date.	Self-registering Barometer at 32°.					Self-registering Anemometer.																					
	Mean.	Max.	Hour.	Min.	Hour.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure. lbs.	Greatest Pressure. Direction of Wind. Time.		
1	29·737	29·880	9 a.m.	29 665	2 a.m.	3	7	1	1	2	...	...	...	1	2	1	1	2	1	...	2	318	13·3	0·9	5·1	S.W.	6·10 a.m.
2	·864	·975	8 a.m.	·745	9 a.m.	...	3	10	7	4	...	...	...	...	...	...	...	...	...	...	...	564	23·5	2·8	9·2	S.S.W.	4·10 p.m.
3	30·014	30·065	8 a.m.	·960	2 p.m.	7	5	1	...	10	1	...	...	...	...	...	...	...	...	...	...	343	14·3	1·0	7·2	S.S.W.	10·50 a.m.
4	29·903	·060	9 a.m.	·730	8 a.m.	...	...	...	...	2	3	1	...	...	8	6	1	2	1	...	...	332	13·8	1·0	4·5	N.E.	5·50 p.m.
5	·522	29·720	9 a.m.	·375	3 & 5 p.m.	...	...	...	...	1	7	8	...	2	1	4	1	...	...	...	...	443	18·4	1·7	19·8	W.	6·52 p.m.
6	·545	·600	8 a.m.	·455	2 & 3 p.m.	...	...	2	10	9	3	...	...	...	...	...	...	...	...	...	...	627	26·1	3·4	8·4	W.S.W.	3·45 p.m.
7	·752	·985	8 a.m.	·590	11 a.m.	1	17	4	2	...	...	...	...	...	...	...	...	...	...	...	...	636	26·5	3·5	10·1	S.S.W.	4·50 p.m.
8	30·132	30·290	8 a.m.	30·005	9 a.m.	5	10	2	5	1	...	...	...	...	...	...	...	...	...	1	...	410	17·1	1·5	11·0	S.	2·55 p.m.
9	·270	·305	9 p.m.	·245	3 & 4 p.m. & 3 a.m.	2	...	1	1	...	...	...	...	6	...	3	7	2	1	1	...	153	6·4	0·2	0·8	E.N.E.	4· 5 p.m.
10	·105	·260	9 a.m.	30 030	8 a.m.	...	...	...	...	1	5	1	1	2	4	5	5	...	...	...	...	280	11·7	0·7	4·8	N.E.	6·45 p.m.
11	29·884	·010	9 a.m.	29·820	5 a.m.	...	...	1	...	4	3	5	1	2	3	3	1	...	1	...	...	201	8·4	0·4	3·1	N.N.E.	7·15 p.m.
12	·846	·055	8 a.m.	·680	2 p.m.	1	...	1	...	10	1	2	...	...	...	...	...	...	6	2	1	428	17·9	1·6	33·6	W.	4·50 p.m.
13	30·004	·060	8 a.m.	·930	4 p.m.	...	...	...	...	...	4	...	...	1	10	7	...	2	...	...	...	214	8·9	0·4	3·1	N.E.	12·35 p.m.
14	29·886	·055	9 a.m.	·805	2, 3, & 4 p.m.	...	...	...	...	1	2	2	8	...	3	1	7	...	...	...	...	306	12·8	0·8	7·2	N.E.	6·37 p.m.
15	·943	·035	8 a.m.	·860	3 p.m.	9	3	1	...	...	...	1	...	1	1	2	1	4	...	1	...	260	10·8	0·6	2·6	S.	3·15 a.m.
16	·935	·060	8 a.m.	·880	4 p.m.	6	2	...	...	...	...	...	...	...	...	2	12	1	1	...	...	260	10·8	0·6	10·1	S.	7·15 a.m.
17	30·288	·410	8 a.m.	30·100	9 a.m.	11	1	1	7	3	...	...	...	...	...	...	...	...	...	...	1	351	14·7	1·1	7·6	S.	9·35 a.m.
18	·262	·420	9 a.m.	·175	4 a.m.	...	...	...	...	1	1	5	...	2	2	7	5	1	...	...	...	311	13·0	0·8	5·1	N.E.	5·35 p.m.
19	·251	·385	8 a.m.	·155	3 p.m.	1	...	...	...	2	1	...	...	...	...	...	...	...	2	12	6	272	11·3	0·6	1·8	S.E.	2·30 p.m.
20	·354	·395	9 a.m.	·320	3 a.m.	...	...	...	...	...	...	...	...	...	1	1	10	7	3	1	1	168	7·0	0·2	0·8	E.	8· 0 p.m.
21	·253	·360	9 a.m.	·205	4 a.m.	...	...	...	...	...	...	...	...	10	...	8	6	...	...	...	...	258	10·8	0·6	4·2	N.E.	4·38 p.m.
22	·210	·250	9 a.m. & 9 p.m.	·160	3 p.m.	...	...	...	...	...	...	...	...	...	9	6	8	1	...	...	...	241	10·0	0·5	3·6	E.N.E.	2·25 p.m.
23	·165	·260	9 a.m.	·125	4 p.m. & 4 a.m.	...	...	...	...	...	...	1	1	2	1	8	6	5	...	...	...	348	14·5	1·1	12·0	E.N.E.	4·10 p.m.
24	·032	·160	9 a.m.	29·975	2, 4, & 6 a.m.	...	...	...	...	...	...	...	1	3	10	8	2	...	...	...	...	252	10·5	0·6	6·8	N.N.E.	5·17 p.m.
25	29·964	·090	8 a.m.	·865	4 & 5 p.m.	10	1	...	...	...	...	...	...	1	...	3	3	3	...	...	3	365	15·2	1·2	14·6	S.	7·28 p.m.
26	30·070	·105	8 & 9 p.m.	30·030	3 a.m.	15	...	1	1	4	...	...	...	...	...	...	...	...	...	...	3	263	10·8	0·6	2·6	S.	12·45 p.m.
27	·033	·075	8 a.m.	30·000	3 p.m.	1	3	3	1	2	...	...	...	...	...	...	1	...	4	7	2	158	6·6	0·2	1·3	S.S.W.	8·25 a.m.
28	·039	·095	8 a.m.	29·995	3 p.m.	2	4	5	...	4	...	...	...	...	...	...	...	...	...	2	7	187	7·8	0·3	1·4	S.	11·15 a.m.
29	·102	·130	11 p m & 7 & 8 a.m.	30·055	4 p.m.	1	...	3	4	1	1	...	...	1	...	...	...	9	4	...	...	109	4·5	0·1	0·7	S.E.	4·45 p.m.
30	·093	·135	9 a.m.	·045	5 p.m.	...	...	...	...	1	3	...	...	5	5	4	3	3	...	...	...	208	8·7	0·4	2·2	N.E.	4·20 p.m.
31	29·993	·120	9 a.m.	29·935	5 a.m.	...	...	...	...	3	3	...	...	6	5	2	4	1	...	...	...	312	13·0	0·8	5·1	N.N.E.	6·40 p.m.
Sums or Means.	30·015	Octr. 18th. 30·420	9 a.m.	Octr. 5th. 29·375	3 & 5 p.m.	75	56	37	39	66	38	26	13	44	65	81	84	43	24	27	26	Sum 9578	Mean 12·9	Mean. 1·0			

Stations.	Distance from Coast in miles.	Height above Sea in feet.	Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind.		Temperature in Shade.				Rain.				Evaporation in inches.	Remarks.
						Direction.	Force. 0·6	Mean. Max.	Mean. Min.	Extreme. Max.	Extreme. Min.	Total Fall, inches.	No. of Days.	Greatest Fall, inches.	Date.		
Tenterfield	85	.....	.....	57·9	.....	E.S.E.	2·0	70·2	45·6	84·8	30·1	3·830	13	1·780	27	2·906	Thunderstorms on 5th, 11th, 17th, and 27th.
Grafton	23	.....	.....	67·7	.....	S.E.	0·9	81·4	54·0	95·2	41·7	3·520	11	1·230	27	3·762	
Bourke	492	.....	.....	67·1	.....	S.	0·1	78·9	55·3	93·4	40·9	0·790	3	0·530	17	.....	High wind, 5th; stormy, 16th; thunder, 29th.
Narrabri	182	.....	.....	72·2	.....	S.W.	1·6	.....	.....	.....	.....	2·460	7	0·760	24	7·655	Frost, 1st; stormy, 16th, 17th, and 24th.
Armidale	82	3278	30·119	54·5	81·0	N.W.	1·2	64·7	44·3	80·2	32·1	2·870	9	0·800	6	5·356	Heavy storm with hail, 29th.
Port Macquarie	0	.....	.....	62·8	.....	S.S.W.	1·8	71·5	54·1	80·9	47·0	3·843	12	1·180	27	4·695	Thunderstorms, 2nd, 13th, 26th, and 28th.
Murrurundi	113	1545	.....	59·9	.....	W.	0·3	69·5	50·3	85·2	37·6	1·950	6	0·480	8	4·419	
Cassilis	140	.....	.....	68·0	.....	W.	1·2	82·8	53·2	90·1	30·2	1·230	3	0·960	17	2·800	
Muswellbrook	96	.....	.....	61·1	.....	S.E.	2·7	67·1	55·0	71·7	48·3	0·900	1	0·900	17	4·318	
Dubbo	230	.....	.....	.....	.....	N.E.	1·3	74·2	.....	85·9	.....	0·580	5	0·290	17	5·344	Thunderstorm, 26th.
Mudgee	120	.....	.....	59·0	.....	W.	1·0	70·0	48·1	81·4	34·0	1·890	10	0·450	17	3·409	Lunar Coronæ, 21st.
West Maitland	16	.....	.....	61·6	.....	S.E.	0·9	71·9	51·3	89·3	40·5	2·580	11	0·870	17	5·143	
Lambton	7	.....	.....	61·8	.....	N.W.	1·7	73·0	50·5	94·3	41·5	4·330	9	1·330	8	4·491	Thunderstorms, 6th and 24th.
Newcastle	1	112	30·034	62·4	71·0	S.W.	0·4	70·8	54·0	90·3	45·3	5·760	9	1·950	8	.....	
Orange	132	2891	.....	53·4	.....	S.	1·9	65·1	41·6	76·3	26·8	2·080	11	0·480	26	3·323	Snow on 2nd and 3rd. Storms on 5th, 6th, and 26th.
Bathurst	100	2200	30·044	57·3	71·0	W.N.W.	1·4	74·0	40·5	88·2	29·3	1·300	9	0·470	26	.....	Stormy on 6th.
Kurrajong	35	1870	.....	54·3	.....	W.	...	62·6	45·9	81·0	36·0	3·650	11	0·800	16	.....	Thunder prevalent during month.
Woodford	50	2192	30·076	56·2	.....	W.	0·1	62·8	49·6	78·4	37·7	3·850	15	0·680	27	.....	
Parramatta	16	.....	.....	62·3	.....	S.W.	1·5	72·0	52·5	84·9	44·6	2·870	13	0·920	8	4·769	Aurora, 15th; thunderstorms, 5th and 24th.
Sydney	5	155	30·059	60·6	70·8	E.N.E.	1·0	68·0	53·2	85·6	43·1	3·468	19	0·922	8	4·189	Storms on 1st, 5th, 6th, 7th, 12th, 22nd, 23rd, and 24th S. gale, 25th.
Liverpool	16	.....	.....	59·7	.....	.....	...	69·4	49·9	83·0	43·0	3·017	18	0·780	8	.....	Halo round sun, 9 a.m., on 4th.
Wentworth	520	.....	.....	63·5	.....	S.W.	2·0	77·3	49·6	100·2	37·8	0·480	6	0·170	5	6·478	Thunderstorm on 5th; hailstorm, 6th.
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	2·830	7	0·980	1	.....	
Cordeaux River	10	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	7·210	17	1·950	24	.....	Heavy thunder and hailstorm, 25th.
Young	148	.....	.....	57·5	.....	N.W.	1·2	71·7	43·2	84·1	28·0	1·530	5	0·780	26	4·533	Thunderstorm, 25th.
Wollongong	0	.....	.....	63·1	.....	N.E.	1·8	72·0	54·1	84·4	43·7	3·850	14	0·800	2	4·264	Gales on 5th, 6th, 11th, and 16th. Heavy thunder and hailstorm, 23rd.
Moss Vale	31	.....	.....	54·8	.....	N.W.	1·2	64·1	45·4	80·4	31·8	3·500	9	1·010	8	.....	Very cold and sleet, 2nd; gale on 12th
Goulburn	57	2129	30·056	56·2	70·0	W.	0·1	70·3	42·1	82·5	31·7	3·010	10	0·980	26	3·071	Thunderstorms, 5th and 27th.
Shoalhaven (Terrara)	0	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	4·775	13	1·540	8	.....	Thunderstorms, 5th and 23rd. Aurora, 16th, at 7 45 p.m.
Wagga Wagga	164	.....	.....	.....	.....	E.	1·7	.....	46·7	.....	37·9	1·260	4	0·700	6	2·848	
Cape St. George	0	175	29·992	59·5	74·0	S.	1·4	68·0	51·0	84·2	40·6	5·215	14	1·560	7	.....	Thunder, hail, and wind storms prevalent.
Queanbeyan	63	.....	.....	51·6	.....	S.S.W.	0·5	58·3	44·9	75·2	33·7	3·130	10	1·050	6	3·121	Snow on hills, 2nd; thunderstorms prevalent.
Urana	224	.....	.....	61·4	.....	N.W.	...	74·2	48·6	83·1	42·1	0·200	1	0·200	4	4·481	Snow on 2nd and 6th; thunderstorms, 6th and 25th; hail, 28th.
Deniliquin	278	410	30·147	61·0	69·0	S.	1·7	77·2	44·9	96·1	25·5	1·660	4	0·800	6	.....	Snow on 2nd; frost on 4th, 9th, 10th, and 18th; storm, 22nd.
Kiandra	84	4640	30·006	43·7	71·0	N.W.	0·9	56·1	31·2	68·1	16·6	3·790	11	1·180	6	.....	Thunderstorm, 21st; stormy, 25th.
Cooma	47	2637	.....	52·8	.....	N.	3·3	66·8	38·8	79·6	24·8	2·020	8	0·600	23	3·919	Hailstorm 1st, thunderstorms 22nd and 23rd. Large meteor seen to rise and fall S.E. at 4·30 a.m., giving light like sunrise, on 15th
Albury	163	572	.....	57·5	.....	W.	0·6	75·3	39·7	88·5	26·9	3·190	5	1·210	6	5·432	
Eden	0	107	29·926	58·1	70·0	S.W.	1·1	65·9	50·2	76·0	42·1	8·270	11	3·081	7	.....	

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES



The dark vertical lines represent Force of Wind & Rain.

Lithographed at the Surveyor General's Office Sydney

The mean Force of Wind on the 6th was 3.4 lbs. and on the 7th 3.5 lbs.
Heavy Dew on the 11th 14th 22nd and 31st

METEOROLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORY, SYDNEY,

AND AN

ABSTRACT FROM THE COUNTRY STATIONS,

FOR THE

MONTH OF NOVEMBER, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1872.

[*Price, 6d.*] 3u 1—72

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY.

LATITUDE 33° 51′ 41″ LONGITUDE 10^h 4^m 46^s

Magnetic Variation 9° 35′ 26″ East.

NOVEMBER, 1871.

GENERAL ABSTRACT.

BAROMETER .. At 32° Fah.	Highest Reading ...	... 30·290	...	On the 10th, at 9 a.m.
	Lowest Reading ...	... 29·530	...	On the 4th, at 4 a.m.
	Mean Height ...	... 29·968		

(Being 0·137 greater than that in the same month on an average of the preceding 12 years.)

WIND	Greatest Pressure...	... 15·7 lbs.	...	On the 14th and 20th.
	Mean Pressure ...	... 0·8 lbs.		
	Number of Days Calm ...	0		
	Prevailing Direction	... N.E.		

(Prevailing direction during the same month for the preceding 12 years ... S.)

TEMPERATURE	Highest in the Shade ...	84·1	... On the 1st.
	Lowest in the Shade ...	52·0	... On the 17th.
	Greatest Range	28·9	... On the 1st.
	Highest in the Sun ...	123·0	... On the 23rd.
	Highest in a Black Box with Glass Top	182·0	... On the 8th and 24th.
	Lowest on the Grass ...	47·7	... On the 17th.
	Mean Diurnal Range ...	14·1	
	Mean in the Shade ...	65·7	

(Being 0·7 less than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..	Greatest Amount...	... 100·0	...	On the 23rd.
	Least	... 40·0	...	On the 24th.
	Mean	... 72·7		

(Being 4·2 greater than that of the same month on an average of the preceding 12 years.

RAIN	Greatest Fall ...	... 0·493 inches.	On the 17th.
	Number of Days ...	... 9	
	Total Fall	1·675 inches.	65 ft. above the ground.
		2·130 inches.	15 inches above the ground.

(Being 1·234 inches less than that of the same month on an average of the preceding 12 years.)

EVAPORATION	Total Amount ...	... 5·044 inches.
OZONE	Mean Amount	4·3

(Being 0·4 less than that in the same month on an average of the preceding 11 years.)

ELECTRICITY ..	Number of Days Lightning	6
CLOUDY SKY ..	Mean Amount	6·7
	Number of Clear Days ...	2
METEORS ..	Number Observed ...	1

REMARKS.

The weather during the month was cool and pleasant, and thunderstorms very frequent; on the 22nd they were experienced at 19 different stations, and on the 11th 2·700 inches of rain fell during a storm at Wentworth. Rain fell at all stations, but was generally heavier in the Southern Districts.

SYDNEY, NOVEMBER, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level.	Wind.		Temperature.									Humidity 0-100.
					Dry.	Wet.	Shade.				Sun.	Grass.	Sea Water.	
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.	9 a.m.	Mean 9.3.9.
1		29·943	S.S.E.	297	71·7	61·9	84·1	55·2	28·9	69·7	120·0	50·8	64·0	57·3
2	Apogee.	·986	S.S.E.	285	63·4	60·7	64·4	58·9	5·5	61·7	75·6	55·0	64·6	84·0
3	G. N. Dec.	·815	S.S.E.	217	60·9	56·5	63·4	58·3	5·1	60·9	79·0	56·0	64·8	74·7
4		·787	N.W.	267	64·1	62·3	70·4	58·3	12·1	64·4	94·8	55·1	65·0	88·7
5	Last Qr.	·612	S.	401	68·5	62·8	68·3	60·0	8·3	64·2	112·1	57·2	65·2	70·0
6		30·081	S.E.	198	59·2	53·3	65·6	52·9	12·7	59·3	109·0	49·4	65·4	66·7
7		·202	N.N.E.	324	64·3	58·6	69·8	55·2	14·6	62·5	108·5	51·3	65·6	68·7
8		·157	E.N.E.	294	69·0	63·6	73·6	53·2	20·4	63·4	114·3	49·1	65·4	71·7
9		·189	S.	441	64·9	61·5	70·7	57·0	13·7	63·9	111·2	52·0	65·6	80·5
10	In Equat.	·287	E.N.E.	117	65·0	62·9	71·4	58·8	12·6	65·1	107·0	57·7	65·8	87·3
11		·190	N.E.	381	68·4	62·1	72·7	56·5	16·2	64·6	112·0	51·2	65·6	67·7
12		·074	N.E.	394	68·1	63·9	72·9	62·2	10·7	67·6	112·7	58·2	66·0	76·0
13	New Moon.	·034	N.E.	421	68·1	64·7	74·8	62·6	12·2	68·7	114·0	58·1	66·4	82·7
14	Perigee.	29·984	N.E.	381	69·5	64·3	76·7	62·6	14·1	69·7	112·9	58·9	66·6	73·0
15		·823	E.	222	72·7	67·0	77·9	61·8	16·1	69·9	112·0	58·0	66·4	71·0
16	G. S. Dec.	·853	S.S.W.	300	61·6	60·5	66·1	61·1	5·0	63·6	99·0	59·6	66·6	93·0
17		30·067	S.	323	62·4	56·3	67·0	52·0	15·0	59·5	107·2	47·7	67·0	66·7
18		·115	E.N.E.	182	64·9	58·3	69·1	52·4	16·7	60·8	111·5	48·0	67·4	64·7
19	First Qr.	·149	N.E.	318	67·7	60·5	70·4	56·0	14·4	63·2	111·3	50·3	67·2	63·0
20		·163	N.E.	417	67·4	61·3	71·3	58·2	13·1	64·8	109·2	53·1	67·6	68·7
21		·064	N.W.	218	70·3	64·8	75·0	59·8	15·2	67·4	114·0	55·5	67·6	72·7
22		29·955	N.E.	236	69·9	65·4	77·7	61·8	15·9	69·8	116·3	57·1	67·8	76·0
23	In Equat.	·760	N.N.E.	357	67·7	65·0	80·1	61·9	18·2	71·0	123·0	57·4	67·6	85·7
24		·646	W.	284	72·8	62·6	81·1	60·9	20·2	71·0	119·0	57·4	68·0	54·7
25		·790	N.E.	414	69·7	64·7	77·1	58·9	18·2	68·0	113·8	55·1	67·8	74·3
26		·723	S.E.	335	76·9	65·5	80·2	63·1	17·1	71·7	118·0	58·0	68·0	51·0
27	Full Moon.	30·063	W.	150	66·2	61·1	71·1	62·5	8·6	66·8	100·5	57·4	68·2	72·3
28		·084	E.	140	67·7	63·9	72·8	58·4	14·4	65·6	113·3	54·2	68·4	79·0
29		·048	S.	329	69·9	65·0	76·1	59·9	16·2	68·0	113·8	...	68·2	74·0
30	G. N. Dec. Apogee.	·217	S.	199	65·8	59·3	70·4	60·1	10·3	65·3	105·1	57·1	68·0	66·3
Means	.....	29·995	N.E.	Sum. 8842	67·3	62·0	72·7	58·7	14·1	65·7	109·0	54·7	66·6	72·7

Observations of Standard Barometer taken at 9 a.m., and corrected to 32° Fah. and Mean Sea Level.
The Barometer at 9 a.m. reads 0·028 above the true mean for the day.

SYDNEY, NOVEMBER, 1871.

ATE.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
1	·0	0·212	4·5	5·5	5·0	10·0	Cloudy, very hot. Thunder clouds at 3 p.m.; dropping rain at 1·55 p.m., and again between 5 p.m. and 6 p.m.
2	·0	0·042	5·5	6·0	5·8	10·0	Cloudy, and very dull. Light rain dropping at 10·15 a.m., and from 7·30 p.m. until after 9 p.m.
3	0·015	0·086	2·5	5·0	3·8	10·0	Cloudy and very dull. Shower at 8·20 a.m.; light rain began at 9 p.m.
4	·0	0·056	5·0	5·5	5·3	10·0	Cloudy and raining from 8·15 a.m. until 12·30 p.m., and again in the evening from 6·20 p.m.
5	0·164	.....	...	...	3·0	10·0	Cloudy. Stormy and raining at 9·15 p.m.
6	0·108	0·140	4·0	5·0	4·5	6·7	Fine from noon up to 6·30 p.m., when clouds gathered and cleared off again about 7 p.m. Cloudy again by 8·30 p.m.
7	·0	0·200	4·0	5·5	4·8	0·7	Fine. Clouds on horizon, W. and S. during day, while it was clear to E. Dry wind.
8	·0	0·216	4·0	5·0	4·5	1·3	Fine. Light clouds formed in the evening, and cleared after 7 p.m.
9	0·001	0·228	3·5	4·5	4·0	10·0	Cloudy. Light rain dropping during evening. Lightning E. at 7·50 p.m.
10	0·036	0·066	5·0	4·0	4·5	9·0	Cloudy, partial, clearing towards evening. Light rain in morning until about 9 a.m.
11	0·001	0·222	3·5	5·5	4·5	5·7	Fine at 9 a.m., and again from 7·30 p.m. to 8·30 p.m. Except to the N. the clouds during the day were light.
12	·0	0·186	...	...	2·8	9·0	Fine from 10 a.m. until the afternoon, then cloudy.
13	·0	0·134	4·0	7·0	5·5	7·7	Clouds cleared at 7·30 p.m., except on horizon. Dropping rain at 9·14 a.m., and light shower at 11·20 a.m.
14	·0	0·178	4·0	5·5	4·8	6·0	Forenoon cloudy and warm, the clouds were cirrus. Afternoon and evening cloudy and fine alternately.
15	·0	0·166	3·0	5·0	4·0	10·0	Cloudy and dull, dropping rain at 9·30 p.m.
16	0·376	0·175	5·5	5·0	5·3	10·0	Cloudy, steady rain all morning. Heavy showers in evening. Thunder at 8·30 p.m., and lightning W.S.W., S.W., and N. during evening.
17	0·493	0·214	3·0	4·5	3·8	2·3	Forenoon fine, afternoon and evening cloudy and fine alternately. Observed meteor at 9·8 p.m.
18	·0	0·160	3·0	4·0	3·5	2·3	Forenoon cloudy and dull from about 8·30 a.m. to 11·30 a.m.
19	·0	0·218	...	...	2·5	5·0	Cloudy and warm during day.
20	·0	0·226	3·5	4·0	3·8	4·3	Cloudy after 7 p.m. Strong dry wind during the day. Lunar ring at 8·45 p.m.
21	·0	0·176	4·0	5·0	4·5	10·0	Cloudy and warm. Electrical clouds W.N.W., at 9 a.m. Thunder storm from 5 p.m. until about 6·45 p.m. Lightning N.N.W. and W. during evening. Began to rain about 7 p.m.
22	0·071	0·229	5·0	5·5	5·3	8·3	Morning fine. Electrical clouds W. at 9 a.m. Thunderstorm 2·26 p.m. until 5·10 p.m. Showers from commencement of storm, and lightning all round.
23	0·381	0·287	6·0	7·0	6·5	7·3	Fine until about noon, and warm. Electrical clouds S.W. and W., at 9 a.m.; succession of thunderstorms afternoon and evening. Lightning all round and heavy showers; hailstones fell at 2·33 p.m.
24	0·480	0·260	1·5	4·5	3·0	0·0	Fine and very warm, with strong dry wind from W.
25	·0	0·200	5·0	5·5	5·3	7·0	Morning fine and warm, rest of day cloudy and dull like rain.
26	·0	0·246	...	...	2·0	0·0	Morning fine and very hot; southerly gale at 10 10 a.m.; afternoon and evening cloudy and dull like rain.
27	·0	0·088	2·5	4·0	3·3	6·0	Light shower at 7·5 a.m. Partial clearing of clouds in the afternoon. Evening fine.
28	0·001	0·087	4·5	5·0	4·8	6·3	Afternoon fine until after 4 p.m. Lightning W.S.W. at 7·55 p.m.
29	0·003	0·188	3·5	5·5	4·5	8·7	Cloudy. Dense fog, cleared about 6·30 a.m. Clouds cleared for a while in the evening. Thick shower 9·25 p.m.
30	·0	0·158	3·0	4·5	3·8	8·7	Cloudy. After 7 p.m. clouds cleared, except on the horizon, until about 9 p.m., then turning cloudy again.
	Sum.	Sum.					
eans	2·130	5·044	3·9	5·1	4·3	6·7	

oudy sky taken at 9 a.m., 3 p.m., and 9 p.m. Amount of Rain, Dew, and Evaporation recorded at 9 a.m., for the previous 24 hours.

Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.

Dew on the 9th, 11th, 28th, and 29th.

SYDNEY, NOVEMBER, 1871.

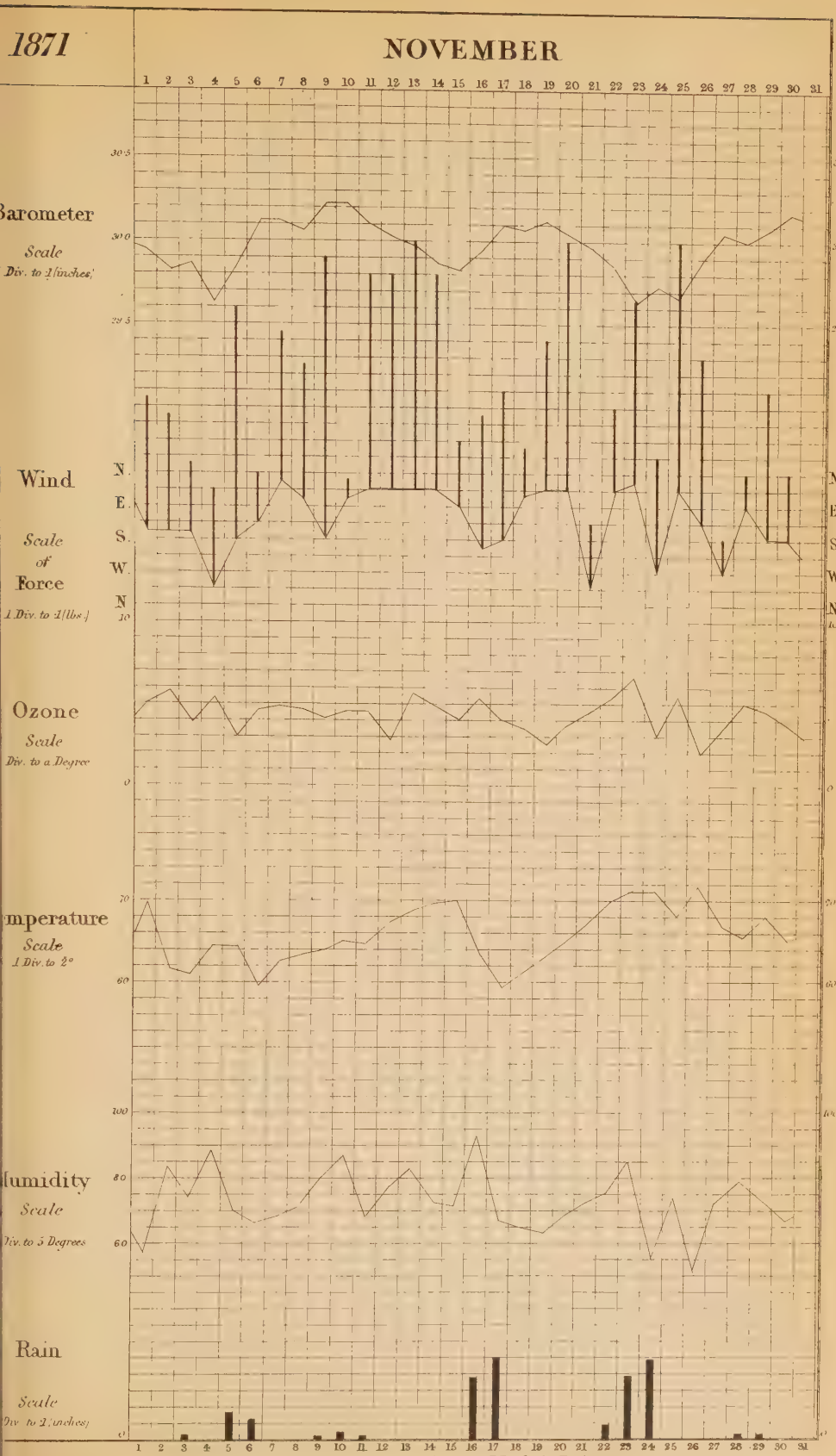
Date.	Self-registering Barometer at 32°.					Self-registering Anemometer.																			
	Mean.	Max.	Hour.	Min.	Hour.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure. lbs.	Greatest Pressure. Direction of Wind. Time.
1	29·945	30·000	9, 10, & 11 p.m.	29·860	3 p.m.	6	...	...	...	6	1	...	...	...	...	...	...	1	...	1	9	297	12·4	0·8	8·0 S. 4·35 p.m.
2	·816	29·980	9 a.m.	·695	3 a.m.	...	2	2	1	1	1	2	...	...	2	4	3	2	...	...	4	285	11·9	0·7	4·5 S.S.E. 7· 0 a.m.
3	·873	·950	9 & 10 p.m.	·820	9 a.m.	1	...	...	...	...	...	..	...	...	4	4	2	...	1	4	8	217	9·0	0·4	3·6 S. 9· 5 a.m.
4	·624	·810	9 a.m.	·530	4 a.m.	...	...	...	...	4	2	6	4	5	2	1	...	...	...	...	...	267	11·1	0·6	3·4 N. 5·33 p.m.
5	·832	30·050	8 a.m.	·640	9 a.m.	9	3	1	...	...	...	...	...	...	...	...	...	...	...	4	7	401	16·7	1·4	4·5 S. 11·25 a.m.
6	30·118	·190	7 & 8 a.m.	30·060	2 & 3 p.m.	3	2	...	...	...	...	...	...	4	1	...	2	...	1	9	2	198	8·3	0·3	1·8 S.S.W. 9·30 a.m.
7	·116	·190	9 a.m.	·065	4 p.m.	...	...	...	...	...	...	...	...	5	8	6	3	2	...	...	...	324	13·5	0·9	6·1 N.N.E. 7·30 p.m.
8	·074	·155	8 a.m.	·020	4 & 5 p.m.	1	2	...	...	...	...	...	...	2	...	5	7	6	1	...	...	294	12·3	0·8	5·8 N.E. 5·20 p.m.
9	·219	·270	10 & 11 p.m.	·155	3 p.m.	18	1	...	...	...	...	...	...	...	...	...	...	...	...	...	5	441	18·4	1·7	3·6 S.S.E. 4·23 p.m.
10	·224	·290	9 a.m.	·195	1 a.m.	1	1	...	...	...	...	...	...	...	...	6	8	6	1	1	...	117	4·9	0·1	1·3 N.N.E. 8·40 a.m.
11	·097	·185	9 a.m.	·040	3, 4, & 5 a.m.	...	...	...	...	...	...	...	...	...	9	10	3	2	...	...	...	381	15·9	1·3	4·2 N.E. 6·55 p.m.
12	·025	·100	9 a.m.	29·990	4 a.m.	...	...	...	...	...	...	...	...	...	1	22	1	...	...	...	...	394	16·4	1·3	11·5 N.N.E. 5·55 p.m.
13	29·989	·035	9 & 10 a.m.	·950	5 p.m.	...	...	...	...	...	...	...	...	...	1	18	4	1	...	...	...	421	17·6	1·5	8·8 N.E. 6· 6 p.m.
14	·882	·000	9 a.m.	·830	3 & 4 a.m.	...	...	...	...	...	...	...	...	4	...	18	2	...	...	...	...	381	15·9	1·3	15·7 N.E. 7·32 p.m.
15	·816	29·865	8 a.m.	·770	5 p.m.	6	5	1	...	1	...	...	...	...	...	...	4	6	1	...	...	222	9·3	0·4	1·3 S. 5·32 a.m.
16	·925	30·045	8 a.m.	·815	3 p.m.	2	11	1	6	1	...	...	...	...	...	...	...	2	1	...	...	300	12·5	0·8	9·7 S.S.W. 7·47 p.m.
17	30·099	·155	9 p.m.	30·060	10 & 12 a.m.	15	1	...	4	4	...	...	...	...	...	...	...	...	...	...	...	323	13·5	0·9	4·2 S. 10·30 a.m.
18	·073	·135	7 & 8 a.m.	·020	3, 4, & 5 p.m.	...	...	...	...	2	...	...	...	...	...	9	10	3	...	...	...	182	7·6	0·3	2·2 E. 4·40 p.m.
19	·113	·155	7 & 8 a.m.	·070	3, 4, & 5 p.m.	...	...	...	...	...	...	...	...	...	1	15	5	3	...	...	...	318	13·3	0·9	2·9 N.E. 6·51 p.m.
20	·066	·150	9 a.m.	·020	3 & 4 a.m.	...	...	...	...	...	...	...	...	...	9	15	...	...	...	...	...	417	17·4	1·5	15·7 N.E. 5·31 p.m.
21	29·987	·055	9 a.m.	29·930	5 p.m.	...	...	3	...	1	...	7	...	...	2	5	2	3	1	...	...	218	9·0	0·4	5·8 N.N.E. 5·43 p.m.
22	·861	29·960	9 a.m.	·790	8 a.m.	...	...	2	...	2	3	...	...	1	...	8	1	6	1	...	...	236	9·8	0·5	3·4 N.E. 1·55 p.m.
23	·655	·780	9 a.m.	·585	1 a.m.	...	...	...	1	4	2	1	1	1	6	4	2	2	...	...	...	357	14·9	1·1	12·0 S.W. 10· 3 p.m.
24	·731	·805	11 p m & 8 a m.	·645	1, 2, & 3 p.m.	2	...	1	5	11	...	...	...	...	...	...	...	...	1	1	3	284	11·8	0·7	8·4 W. 10·15 a.m.
25	·678	·800	9 & 10 a.m.	·615	2 a.m.	...	...	...	...	4	2	...	...	3	4	6	5	...	...	...	...	414	17·3	1·5	11·5 N.E. 5·45 p.m.
26	·894	30·035	8 a.m.	·730	9 a.m.	5	...	...	2	...	...	...	...	...	...	...	...	1	1	12	3	335	14·0	1·0	6·1 S. 12· 3 p.m.
27	30·055	·075	9 & 10 pm & 8 am	30·030	4 & 5 p.m.	1	2	...	2	5	...	...	...	...	...	...	...	3	5	2	4	150	6·3	0·2	0·8 S.S.E. 11·16 a.m.
28	·005	·070	9 a.m.	29·955	5 p.m.	...	3	...	...	...	...	...	...	4	1	6	3	7	...	...	...	140	5·8	0·2	1·3 E. 4·24 p.m.
29	·084	·180	8 a.m.	30·010	3 p.m.	12	2	1	...	...	...	...	...	...	...	...	...	...	2	3	4	329	13·7	0·9	2·9 S. 7·41 a.m.
30	·173	·200	9, 10, & 11 a.m.	30·150	2, 3, & 4 a.m.	7	7	3	...	...	...	...	...	...	...	...	...	..	3	4	199	8·3	0·4	2·0 S. 11·53 a.m.
Sums or Means.	29·968	Nov. 10th. 30·290	9 a.m.	Nov. 4th. 29·530	4 a.m.	89	42	15	21	46	11	16	5	29	51	162	67	56	17	40	53	Sum 8842	Mean 12·3	Mean. 0·8	

The self-registering Barometer is photographic, and the Anemometer, mechanical. A set of Robinson's Cups record the velocity from which the pressure in lbs. per square foot, is obtained by the Formula P = v² × ·005. The direction of the wind is taken [illegible]

Stations.	Distance from Coast in miles.	Height above sea in feet.	Mean of Observations taken at 9 a.m., November, 1871.					Temperature in Shade.				For 24h. previous to 9 a.m.					Remarks.
			Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind.						Rain.				Evaporation in inches.	
						Direction.	Force. 0·6	Mean. Max.	Mean. Min.	Extreme. Max.	Extreme. Min.	Total Fall, inches.	No. of Days.	Greatest Fall, inches.	Date.		
Tenterfield	85	.....	.....	63·8	.....	E.	2·2	77·0	50·5	88·2	41·9	3·430	11	2·170	5	4·405	Thunderstorms, 5th, 24th, & 27th; stormy, 28th and 29th.
Grafton	23	.....	.....	73·1	.....	W.	0·9	84·8	61·4	100·2	55·2	2·315	11	0·650	5	4·904	Hot wind, 25th; thunderstorm, 27th
Bourke	492	.....	.....	.....	.....	N.	0·1	86·4	.....	98·4	.....	0·560	2	0·320	5	.....	Thunderstorms, 4th and 22nd.
Narrabri	182	.....	.....	75·7	.....	N.W.	2·0	88·2	63·1	97·9	54·8	1·780	4	0·870	29	5·646	Heavy thunderstorm 29th; stormy 20th.
Armidale	82	3278	30·088	62·8	68·0	E.	1·2	73·7	51·9	83·2	42·1	4·590	7	1·150	21	7·386	Thunderstorms, 21st and 29th.
Port Macquarie	0	.....	.....	67·0	.....	N.E.	1·7	74·3	59·6	79·8	52·0	3·423	9	1·380	6	5·083	Thunderstorms 3rd, 23rd, & 26th; thunder 7th, 22nd, and 28th.
Murrurundi	113	1050	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	...	.....	...	.....	
Cassilis	140	.....	.....	70·1	.....	E.	0·8	86·4	53·8	96·1	40·2	1·810	7	0·650	16	3·596	Thunderstorms 22nd & 23rd.
Muswellbrook	96	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	...	.....	...	.....	
Dubbo	230	.....	.....	.....	.....	E.N.E.	0·6	79·3	.....	89·9	.....	0·870	4	0·680	5	6·186	Stormy, 19th.
Mudgee	120	.....	.....	68·0	.....	W.	0·9	79·3	56·7	90·4	42·0	1·540	6	0·840	5	5·052	
West Maitland	16	.....	.....	71·3	.....	S.E.	1·0	83·5	59·0	101·8	45·7	1·760	7	0·590	17	5·894	Hot wind, 1st & 15th; squalls, 17th; thunderstorms, 22nd & 23rd
Lambton	7	.....	.....	67·1	.....	W.	1·5	76·4	57·8	91·3	46·0	3·820	10	2·230	6	5·313	Thunder and lightning, 21st, 23rd, 24th, 28th, 29th, and 30th.
Newcastle	1	112	29·978	67·3	74·0	N.E.	0·2	74·2	60·3	90·3	51·3	1·620	7	0·770	6	.....	Brilliant meteor, E.S.E., on 15th.
Orange	132	2891	.....	61·0	.....	N.E.	1·9	71·3	50·8	80·0	37·9	2·290	9	0·810	5	4·016	Thunderstorms, 5th, 13th, 22nd, 23rd, 24th, & 29th.
Bathurst	100	2333	29·998	64·8	67·0	S.	1·3	81·5	48·0	97·0	39·0	2·150	6	0·860	24	.....	
Kurrajong	35	1870	.....	59·1	.....	E.	...	67·1	51·0	79·0	41·0	4·250	15	1·100	29	.....	Thunderstorms, 21st, 23rd, 29th; thunder very frequent.
Woodford	50	2192	30·040	61·3	.....	W.	0·0	68·3	54·2	78·4	46·7	2·900	13	0·800	16	.....	
Parramatta	16	.....	.....	68·5	.....	S.	1·0	78·7	58·2	91·1	52·1	1·900	7	0·430	6	5·093	Thunderstorms, 16th, 21st, 22nd, and 23rd.
Sydney	5	155	29·995	65·7	72·7	N.E.	0·8	72·7	58·7	84·1	52·0	2·130	9	0·493	17	5·044	Thunderstorms, 5th, 21st, 22nd, & 23rd; hail, 23rd; S. gale, 26th.
Liverpool	16	.....	.....	66·8	.....	.....	...	76·9	56·6	83·0	50·0	1·993	13	0·450	22	.....	
Wentworth	520	.....	.....	70·2	.....	S.W.	2·0	82·8	57·5	95·3	41·9	3·960	7	2·700	11	5·761	Thunderstorms, 4th, 11th, 12th, 13th and 22nd.
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	2·690	11	0·810	24	.....	Thunderstorms, 22nd, 23rd, and 24th; hail, 24th.
Cordeaux River	10	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	2·490	12	0·470	23	.....	Thunderstorms, 16th, 17th, 22nd, and 23rd.
Young	148	.....	.....	64·5	.....	S.W.	1·2	81·4	47·6	92·0	34·0	2·510	7	1·440	5	.....	
Wollongong	0	.....	.....	64·9	.....	N.E.	1·3	72·1	57·6	80·9	50·7	0·780	3	0·410	16	4·405	
Moss Vale	31	.....	.....	62·3	.....	S.	1·0	72·0	52·6	83·0	42·0	1·750	11	0·360	23	.....	Hailstorm, 16th; thunderstorms, 21st, 22nd, and 23rd.
Goulburn	57	2129	29·975	62·8	58·0	W.	0·0	77·0	48·6	88·6	36·9	1·620	9	0·540	22	3·346	Thunderstorms, 4th, 20th, 21st, 22nd, 23rd, 28th and 29th.
Shoalhaven (Terrara)	0	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	3·080	13	0·980	23	.....	Thunderstorms, 16th, 21st, 22nd, and 23rd.
Wagga Wagga	164	.....	.....	68·5	.....	E.	1·2	83·3	53·6	94·1	43·9	3·100	7	1·250	5	4·791	
Cape St. George	0	175	29·951	64·1	74·0	N.E.	1·5	70·5	57·6	82·2	46·6	3·295	16	0·725	17	.....	Southerly gales, 17th and 18th; thunderstorms, 23rd and 24th.
Queanbeyan	63	.....	.....	60·3	.....	W.	0·4	68·3	52·2	80·2	38·7	3·560	15	0·950	30	2·964	Thunderstorms, 4th, 19th, 20th, 21st, 23rd, and 29th; frost, 6th.
Urana	224	.....	.....	64·6	.....	N.E.	...	78·0	51·2	95·1	43·1	3·220	5	1·580	20	6·853	Thunderstorms, 1st, 12th, & 21st.
Deniliquin	278	410	30·049	62·7	70·0	S.E.	1·4	83·4	42·0	96·6	29·5	3·460	10	1·030	23	.....	Thunderstorms, 11th, 12th, 13th, 21st, 22nd, & 23rd; Aurora, 19th.
Kiandra	84	4640	29·979	48·6	70·0	N.W.	0·7	60·5	36·7	71·9	21·0	7·980	17	1·520	14	.....	Thunderstorms, 20th, 21st, 22nd, 23rd, and 30th; hail, 20th.
Cooma	47	2637	.....	.....	.....	N.	2·6	.....	45·1	.....	25·8	2·390	8	0·630	22	2·804	Frost, 6th & 8th; thunderstorms, 16th, 19th, 21st, 22nd; h'vy hail, 19th
Albury	163	572	.....	63·0	.....	W.	0·3	81·3	44·6	89·5	28·9	3·350	9	0·900	15	5·007	Thunderstorms, 21st and 22nd.
Eden	0	107	29·823	63·4	70·0	S.W.	1·3	71·6	55·2	81·0	47·1	2·390	18	0·410	15	.....	Thunderstorms, 21st, 22nd, and 24th; hailstorm, 21st.

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES



The dark vertical lines represent Force of Wind & Rain.

Lithographed at the Surveyor Generals Office Sydney. Dec.r 1871.

Heavy Dew on the 9th 11th 28th and 29th

METEOROLOGICAL OBSERVATIONS

MADE AT THE

GOVERNMENT OBSERVATORY, SYDNEY,

AND AN

ABSTRACT FROM THE COUNTRY STATIONS,

FOR THE

MONTH OF DECEMBER, 1871;

UNDER THE DIRECTION OF

H. C. RUSSELL, B.A., F.R.A.S.,
GOVERNMENT ASTRONOMER FOR NEW SOUTH WALES.

Published by authority of Her Majesty's Government in New South Wales.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1872.

[*Price*, 6*d*.] 3*u* 4—72

METEOROLOGICAL OBSERVATIONS.

GOVERNMENT OBSERVATORY, SYDNEY.

LATITUDE 33° 51′ 41″ LONGITUDE 10h 4m 46s

Magnetic Variation 9° 35′ 26″ East.

DECEMBER, 1871.

GENERAL ABSTRACT.

BAROMETER .. At 32° Fah.	Highest Reading	30·200	... On the 13th, at 7 a.m.
	Lowest Reading	29·420	... On the 12th, at 2 p.m.
	Mean Height	29·944	

(Being 0·450 greater than that in the same month on an average of the preceding 12 years.)

WIND	Greatest Pressure... ...	20·5 lbs.	... On the 17th
	Mean Pressure	0·9 lbs.	
	Number of Days Calm ...	0	
	Prevailing Direction ...	N.E.	

(Prevailing direction during the same month for the preceding 12 years ... N.E.)

TEMPERATURE	Highest in the Shade ...	103·8	... On the 22nd
	Lowest in the Shade ...	54·5	... On the 14th.
	Greatest Range	36·8	... On the 22nd.
	Highest in the Sun ...	136·8	... On the 22nd.
	Highest in a Black Box with Glass Top	199·3	... On the 22nd.
	Lowest on the Grass ...	48·7	... On the 13th.
	Mean Diurnal Range ...	15·3	
	Mean in the Shade ...	71·6	

(Being 2.8 greater than that of the same month on an average of the preceding 12 years.)

HUMIDITY ..	Greatest Amount... ...	96·0	... On the 20th.
	Least	40·0	... On the 12th.
	Mean	71·5	

(Being 0·8 greater than that of the same month on an average of the preceding 12 years.)

RAIN	Greatest Fall	0·307 inches.	On the 9th.
	Number of Days	11	
	Total Fall	0·707 inches.	65 ft. above the ground.
		0·565 inches.	15 inches above the ground.

(Being 1·763 inches less than that of the same month on an average of the preceding 12 years.)

EVAPORATION	Total Amount	6·158 inches.
OZONE	Mean Amount	4·2

(Being 0·1 less than that in the same month on an average of the preceding 11 years.)

ELECTRICITY	Number of Days Lightning	8
CLOUDY SKY ..	Mean Amount	6·5
	Number of Clear Days ...	2
METEORS ..	Number Observed ...	0

REMARKS.

Rainfall, 65 feet high is up to midnight, and 15 inches high only up to 9 a.m. of 31st.

The weather was remarkably warm all over the Colony this month, and at Sydney, 2·8° above the average of the previous 12 years. Bush fires were frequent, and hot winds were recorded on the 3rd, 12th, 16th, 21st, 22nd, 23rd, 24th, and 30th; that of the 12th at Port Macquarie and Cape St. George; that of 21st at Goulburn and Cooma; that of 23rd at Moss Vale and Cape St. George; that of 22nd at Sydney, Goulburn, Deniliquin, and Eden. 91 thunderstorms were recorded during the month. Considerable damage was done by one on the 7th at Urana to the houses and Telegraph posts; the 2nd, 3rd, 14th, 15th, 16th, 22nd and 28th were the only days without storms, making the average on the other days nearly 4 each day.

The rainfall was small in many places, and in Sydney 1·763 below the average, and less than it has been during any December since 1854, when only 0·39 inches was recorded.

SYDNEY, DECEMBER, 1871.

Date.	Moon's Phases.	Standard Barometer at 9 a.m., corrected to Mean Sea Level.	Wind.		Temperature.									Humidity 0-100.
					Dry.	Wet.	Shade.				Sun.	Grass.	Sea Water.	
			Prevailing Direction.	Total Velocity. Miles.	Mean 9.3.9.	Mean 9.3.9.	Max.	Min.	Range	Mean.	Max.	Min.	9 a.m.	Mean 9.3.9.
1		30·210	W.S.W.	128	68·0	61·7	74·0	57·8	16·2	65·9	119·9	52·8	68·2	67·7
2		·116	E.N.E.	327	70·1	63·3	76·3	62·5	13·8	69·4	118·9	58·1	68·4	66·3
3		·065	N.E.	220	71·9	66·0	74·1	61·5	12·6	67·8	113·7	56·2	68·6	70·0
4		·117	N.E.	331	71·8	66·5	76·5	60·0	16·5	68·3	115·7	55·8	68·4	73·0
5	Last Qr.	29·970	E.N.E.	330	74·5	68·0	79·4	63·3	16·1	71·4	117·6	57·6	68·8	69·0
6		·972	S.	234	71·0	67·1	76·6	65·3	11·3	71·0	107·0	61·6	68·6	79·3
7	In Equat.	30·053	N.E.	318	70·7	67·0	77·8	64·8	13·0	71·3	103·8	60·1	69·2	79·7
8		29·908	E.	273	71·9	67·1	78·7	62·7	16·0	70·7	115·0	59·3	69·6	75·0
9		·856	S.	228	75·0	69·0	82·1	64·1	18·0	73·1	118·4	60·2	69·8	71·3
10		30·001	N.N.E.	226	68·3	67·5	74·1	66·2	7·9	70·2	112·8	63·7	70·0	95·0
11		29·838	N.N.E.	353	72·8	69·3	82·3	62·5	19·8	72·4	115·0	57·7	70·4	81·3
12	New Moon.	·469	W.	689	77·3	63·1	87·4	67·9	19·5	77·7	121·1	63·1	70·2	43·0
13	G. S. Dec. Perigee.	30·085	E.N.E.	194	65·8	55·2	72·6	55·8	16·8	64·2	112·2	48·7	70·6	51·0
14		·219	N.N.E.	354	69·1	60·3	73·2	54·5	18·7	63·9	113·1	49·8	70·8	58·3
15		·087	N.E.	315	71·7	65·3	75·3	59·3	16·0	67·3	110·5	54·1	70·6	68·7
16		29·964	N.E.	484	72·5	66·0	80·3	63·1	17·2	71·7	116·0	58·4	71·0	68·0
17		·707	S.	417	74·3	66·8	85·1	66·9	18·2	76·0	115·3	62·8	71·2	64·0
18		30·155	E.N.E.	136	71·4	63·1	76·1	63·9	12·2	70·0	118·9	61·1	71·0	60·7
19	First Qr.	·148	N.E.	321	71·3	67·9	78·4	60·6	17·8	69·5	115·0	56·1	71·4	81·3
20	In Equat.	·050	S.S.W.	271	73·6	70·2	80·8	66·9	13·9	73·9	118·2	63·1	71·6	82·3
21		·152	E.N.E.	216	73·6	69·7	86·2	67·6	18·6	76·9	120·4	66·2	71·0	79·7
22		29·918	S.	365	82·9	72·7	103·8	67·0	36·8	85·4	136·8	63·4	71·6	57·3
23		·944	S.E.	205	74·5	68·5	83·1	69·4	13·7	76·3	119·7	65·3	71·4	71·0
24		·703	S.	360	76·7	70·6	82·0	68·3	13·7	75·2	116·0	66·3	71·6	70·0
25		·854	S.S.E.	187	66·5	64·6	70·9	64·7	6·2	67·8	87·0	61·6	71·2	88·0
26		·905	S.	203	68·2	65·7	73·2	63·9	9·3	68·6	91·4	62·4	71·4	85·3
27	Full Moon G N. Dec. Apogee.	30·049	E.N.E.	277	69·2	64·3	72·1	66·1	6·0	69·1	84·0	62·2	71·6	73·3
28		·088	N.E.	232	71·9	67·6	77·0	65·8	11·2	71·4	117·9	61·8	71·4	77·0
29		·184	N.N.E.	255	73·1	67·8	77·6	66·2	11·4	71·9	117·7	60·1	71·8	73·3
30		·076	N.E.	456	73·0	69·5	84·1	65·8	18·3	75·0	116·7	62·0	71·4	81·3
31		29·846	S.	372	83·0	72·6	85·7	68·2	17·5	77·0	99·1	65·2	71·6	56·0
				Sum.										
Means	.....	29·991	N.E.	9277	72·4	66·6	79·3	64·0	15·3	71·0	113·1	59·9	70·5	71·5

Observations of Standard Barometer taken at 9 a.m., and corrected to 32° Fah. and Mean Sea Level.
The Barometer at 9 a.m. reads 0·032 above the true mean for the day.

SYDNEY, DECEMBER, 1871.

E.	Rain. Inches.	Evaporation. Inches.	Ozone, 0-10. Day.	Night.	Mean.	Cl'dy Sky. 0-10.	Remarks.
	·0	0·166	2·5	3·0	2·8	6·3	Fine from 11 a.m. until about 7·30 p.m. Warm.
	·0	0·236	3·0	5·0	4·0	1·7	Fine and very warm. Cloudy from 9·45 a.m. until 10 a.m. Horizon hazy in the evening.
	·0	0·201	...	...	2·5	6·0	Morning cloudy from 8·30 a.m. until 9·30 a.m. Very warm.
	0·004	0·256	4·0	5·5	4·8	1·7	Fine and very warm. Dense fog in the morning; cleared at 7 a.m. Cloudy about 10 p.m.
	·0	0·246	4·5	6·5	5·5	6·3	Cloudy in the morning, and again after 7·30 p.m. Day very warm.
	·0	0·162	4·0	4·5	4·3	10·0	Cloudy and dull. Horizon hazy. About 8·45 p.m. clouds clearing towards the zenith.
	·0	0·162	3·5	5·5	4·5	8·0	Cloudy and smoky-looking; fine about 8 p.m. Lightning W. at 9·45 p.m.
	0·001	0·147	5·5	8·0	6·8	8·0	Cloudy. A succession of thunderstorms from 3·6 p.m. until about 10 p.m. Lightning all round; heavy showers.
	0·307	0·265	5·0	8·5	6·8	4·3	Evening cloudy and dull. Lightning, S. and S.W., at 9·15 p.m.
	0·075	0·087	...	...	3·0	10·0	Cloudy until 7 p.m. Thunderstorms at 3·15 a.m., and 7·40 a.m. Showery.
	0·067	0·147	5·0	6·5	5·8	10·0	Cloudy. Dropping rain 9 p.m. Evening showery from 8·5 p.m Squall from the W. at 8·10 p.m. Lightning, N.W., N., and E., during evening.
	0·065	0·410	2·0	3·5	2·8	2·0	Fine, warm. Very dry wind all day. Heavy clouds on horizon to E Solar Eclipse, 2·21 p.m. until 4·5 p.m. Gale from W. during day, and rain at 12·30 p.m.
	·0	0·228	2·0	3·0	2·5	0·0	Fine and clear during day.
	·0	0·286	3·0	4·0	3·5	0·7	Fine. Forenoon smoky-looking to W. Evening cool.
	·0	0·179	4·0	5·5	4·8	9·7	Cloudy. Very hazy all day. Lightning W. at 8·25 p.m.
	·0	0·228	3·5	5·0	4·3	10·0	Cloudy. Dense haze during day; about 8 p.m haze partly cleared.
	0·005	0·186	...	...	2·5	10·0	Cloudy. Thunderstorm. S.W., at 1 p.m., and heavy shower. Lightning 1·27 p.m. Another storm 5 p.m. E., dropping rain. Rainbows 4·37 p.m., E.; and 5·8 p.m, S.E.
	0·020	0·162	3·5	3·5	3·5	7·0	Cloudy until 4 p.m., and warm.
	·0	0·154	6·0	5·5	5·8	10·0	Morning sultry. Fine from 11·30 until after 2 p.m. Evening cloudy and fine alternately, Lightning N.N.E., N., N.W., W., and S.W. from 8 p.m.
	·0	0·186	4·0	4·5	4·3	7·7	Fine, and very warm until noon, like rain at 3 p.m. Light fog at 5 a.m., and a thick fog all evening; at 8·45 p.m. began to clear.
	·0	0·148	4·0	5·0	4·5	3·7	Fine after 1 p.m. Like rain in the morning. Very warm during day.
	·0	0·382	4·0	3·5	3·8	0·0	Fine. Hot wind blowing until about 1·35 p.m. Horizon very smoky. S. gale at 12·35 a.m.
	·0	0·222	4·5	5·5	5·0	6·7	Morning cloudy, and again after 5 p.m. Very light rain dropping at 10·18 p.m.
	·0	0·230	...	...	3·5	10·0	Fine from 11 a.m. until the afternoon. Thunder clouds N. after 2 p.m. S. gale 3·30 p.m. and looked like rain.
	0·010	0·077	...	...	2·8	10·0	Cloudy and dull all day. Light rain all morning. Drops of rain falling at 2·33 p.n.
	0·003	0·076	4·0	5·5	4·8	10·0	Cloudy, like rain. Very light rain all morning.
	0·002	0·069	2·5	6·0	4·3	10·0	Cloudy and dull. Shower at 6·33 a.m. Light rain from 12·45 p.m. until 1 p.m.; and dropping rain 7·15 p.m.
	0·001	0·186	4·0	5·5	4·8	6·0	Forenoon fine from 10·30 a.m., also afternoon and evening until about 8 p.m. Light shower at 7·5 a.m.
	·0	0·223	3·5	5·0	4·3	2·3	Fine, warm. Evening clear.
	0·005	0·190	4·5	5·0	4·8	3·3	Morning cloudy. Light rain from 8·22 a.m. until after 9 a.m. Afternoon and evening warm. Strong breeze blowing.
	·0	0·261	...	...	4·0	10·0	Morning cloudy and sultry. Dropping rain at 9 a.m. Thunderstorm at 11·59 a.m., W.N.W., with heavy rain. Lightning, W., at 8·50 p.m.
	Sum.	Sum.					
ns	0·565	6·158	3·8	5·1	4·2	6·5	

dy sky taken at 9 a.m., 3 p.m., and 9 p.m. Amount of Rain, Dew, and Evaporation recorded at 9 a.m., for the previous 24 hours.

Amount of Day and Night Ozone recorded at 9 p.m. and 9 a.m. respectively.

Dew on the 4th, and 8th.

SYDNEY, DECEMBER, 1871.

Date.	Self-registering Barometer at 32°.					Self-registering Anemometer.																			
	Mean.	Max.	Hour.	Min.	Hour.	S.	S.S.W.	S.W.	W.S.W.	W.	W.N.W.	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E.S.E.	S.E.	S.S.E.	Velocity. Total. Miles.	Velocity. Mean. pr. hr.	Mean Pressure. lbs.	Greatest Pressure. Direction of Wind. Time.
1	30·127	30·185	9 a.m.	30·085	4 a.m.	6	...	...	7	1	...	...	...	...	...	...	...	3	3	2	2	128	5·3	0·1	0·7 E. 2.18 p.m.
2	·019	·100	9 a.m.	29·980	5 p.m.	...	...	...	...	2	1	...	...	2	1	5	11	2	...	...	...	327	13·6	0·9	5·4 E.N.E. 5·13 p.m.
3	·067	·115	7 & 8 a.m.	30·010	3 & 4 p.m.	...	...	...	...	...	...	...	...	1	6	13	3	1	...	...	...	220	9·2	0·4	4·2 N.N.E. 1·36 p.m.
4	29·992	·100	9 a.m.	29·930	3 & 4 a.m.	...	...	...	...	...	...	...	...	...	7	13	4	...	...	...	...	331	13·8	1·0	6·8 N.N.E. 7·56 p.m.
5	·861	29·965	9 a.m.	·800	5 & 6 p.m.	5	1	1	...	...	...	...	...	...	2	3	7	4	...	...	1	330	13·8	1·0	6·5 N.E. 5·41 p.m.
6	·969	30·035	8 a.m.	·930	3 p.m.	13	1	5	3	...	...	...	...	...	...	...	...	...	...	1	1	234	9·8	0·5	3·6 S. 4·32 p.m.
7	·936	·035	9 a.m.	·885	3 a.m.	...	...	...	...	2	1	...	...	1	...	9	6	3	1	1	...	318	13·3	0·9	10·6 N.E. 6·35 p.m.
8	·850	29·925	10 p.m.	·765	4 p.m.	...	...	1	1	4	1	2	...	...	2	3	3	5	1	...	1	273	11·4	0·6	4·2 N.E. 3·11 p.m.
9	·905	·955	9 p.m. & 8 a.m.	·845	9 a.m.	10	2	...	1	1	...	...	...	...	...	...	1	...	2	5	2	228	9·5	0·5	4·5 S. 10·52 a.m.
10	·920	·985	9 & 10 a.m.	·865	4 a.m.	1	1	...	...	...	...	...	...	2	9	2	7	1	...	1	...	226	9·4	0·4	2·0 N.N.E. 11· 2 p.m.
11	·607	·845	9 a.m.	·475	4 & 5 a.m	...	...	...	3	1	2	4	...	...	4	3	4	1	1	...	...	353	14·7	1·1	13·5 N.N.E. 6·27 p.m.
12	·727	30·060	8 a.m.	·420	2 p.m.	...	...	2	6	13	2	1	...	...	...	...	...	...	...	...	...	689	28·7	4·1	15·7 W. 2·47 p.m.
13	30·121	·200	7 a.m.	·050	9 a.m.	...	...	1	1	...	...	...	...	4	3	1	6	2	3	2	1	194	8·1	0·3	2·0 E.S.E. 1·23 p.m.
14	·087	·180	9 a.m.	·040	3 & 4 a.m.	...	...	...	...	...	...	...	1	1	13	8	1	...	...	...	...	354	14·8	1·1	15·1 N.N.E. 5· 0 p.m.
15	29·973	·075	9 a.m.	29·925	5 p.m.	...	...	...	...	...	...	1	...	1	2	12	7	1	...	...	...	315	13·1	0·9	10·6 N.E. 5·17 p.m.
16	·781	29·945	9 a.m.	·715	1 a.m.	...	...	...	...	...	1	...	...	...	4	9	8	...	1	...	1	484	20·2	2·0	13·5 N.E. 6·18 p.m.
17	·892	30·120	8 a.m.	·680	4 p.m.	13	1	...	...	...	...	2	1	5	...	...	...	1	1	...	...	417	17·4	1·5	20·5 S. 6·27 p.m.
18	30·121	·155	9 p.m.	30·100	3, 4, 5, & 6 a.m.	...	...	...	...	...	...	...	...	...	2	7	8	6	...	1	...	136	5·7	0·2	0·8 E. 1·50 p.m.
19	·005	·150	9 a.m.	29·955	2 & 3 a.m.	...	4	1	1	...	...	...	...	5	9	2	1	...	...	1	...	321	13·4	0·9	5·8 N.E. 2· 3 p.m.
20	·057	·120	8 a.m.	30·005	2 p.m.	8	10	...	...	...	...	...	...	...	...	...	...	...	...	1	5	271	11·3	0·6	1·6 S.S.E. 11·18 a.m.
21	29·997	·130	9 a.m.	29·935	4, 5, 7, & 8 a.m.	1	...	...	...	...	...	...	...	...	...	4	12	5	1	...	1	216	9·0	0·4	4·8 N.E. 6·55 p.m.
22	·849	29·955	7 a.m.	·780	4 & 5 p m.	8	...	...	1	1	2	...	...	...	...	1	6	5	...	...	...	365	15·2	1·2	9·2 S. 2· 9 a.m.
23	·832	·925	9 a.m.	·735	8 a.m.	3	3	2	...	...	2	...	...	...	...	...	1	4	1	5	3	205	8·5	0·4	2·0 S.E. 6·30 p.m.
24	·755	·875	10 p.m.	·540	3 p.m.	8	6	1	...	...	...	...	...	...	1	...	1	5	...	1	1	360	15·0	1·1	14·6 S. 5·40 p.m.
25	·840	·880	8 a.m.	·785	5 p.m.	7	...	...	...	...	...	...	...	...	...	...	...	...	...	4	13	187	7·8	0·3	1·3 S. 9·35 a.m.
26	·926	30·025	8 a.m.	·850	4 p.m.	13	2	...	...	...	...	...	...	...	...	...	...	...	...	4	5	203	8·5	0·4	1·1 S. 2·20 p.m.
27	30·063	.100	10 p.m.	30·030	5 p.m.	...	...	...	...	...	...	...	...	...	2	7	10	4	...	1	...	277	11·5	0·7	1·6 E.N.E. 4·42 p.m.
28	·103	·160	11 p.m.	·050	2, 3, & 4 p.m.	...	...	...	...	...	...	...	...	1	15	8	...	...	...	...	...	232	9·7	0·5	2·0 N.E. 2·20 p.m.
29	·074	·145	10 a.m.	·035	5 & 6 a.m.	...	...	...	...	...	...	...	...	10	8	6	...	...	...	...	...	255	10·6	0·6	4·2 N.E. 3·52 p.m.
30	29·910	·070	9 a.m.	29·835	4 a.m.	...	...	...	...	...	...	...	3	...	3	11	6	1	...	...	...	456	19·0	1·8	16·8 N.E. 5·18 p.m.
31	·889	29·970	8 a.m.	·825	10 a.m.	11	1	...	...	...	...	2	1	1	...	2	2	3	...	1	...	372	15·5	1·2	6·1 S. 1·37 a.m.
Sums or Means.	29·944	Dec. 13th. 30·200	7 a.m.	Dec. 12th. 29·420	2 p.m.	107	32	14	24	25	12	12	6	18	77	145	130	58	15	31	38	Sum 9277	Mean 12·5	Mean. 0·9	

Stations.	Distance from Coast in miles	Height above sea in feet.	Barometer.	Temperature in Shade.	Humidity, 0 to 100.	Wind.		Temperature in Shade.				Rain.				Evaporation in inches.	Remarks.
						Direction.	Force. 0·6	Mean. Max.	Mean. Min.	Extreme. Max.	Extreme. Min.	Total Fall, inches.	No. of Days.	Greatest Fall, inches.	Date.		
Tenterfield	85	.....	.....	71·5	.....	E.N.E.	1·9	85·2	57·7	97·5	49·3	2·930	9	0·910	29	6·874	Stormy, 11th, 12th, 13th, 19th, 27th, and 29th.
Grafton	23	.....	.....	77·9	.....	E.	1·3	90·8	64·9	105·2	54·2	3·025	7	0·910	27	6·737	Thunderstorm, 11th; eclipse on 12th, visible.
Bourke	492	.....	.....	.....	.....	N.	0·1	96·3	.....	105·4	.....	1·100	6	0·450	20	.....	Heavy thunderstorms, 5th, 6th, 7th, 11th, 19th, 30th, and 31st.
Narrabri	182	.....	.....	84·3	.....	N.W.	2·2	97·7	70·9	108·9	56·8	1·940	5	0·910	28	13·297	Eclipse, 12th, visible.
Armidale	82	3278	30·084	71·0	69·0	W.	1·5	82·8	59·1	93·2	47·1	3·790	3	3·200	28	4·964	Thunderstorm, 11th; heavy rain, 27th.
Port Macquarie	0	.....	.....	70·6	.....	N.E.	1·7	78·0	63·2	95·8	53·3	2·970	6	1·580	28	6·231	
Murrurundi	113	1545	.....	76·4	.....	W.	0·7	88·9	63·8	101·1	51·3	2·694	5	0·865	30	6·707	Thunderstorms, 24th, 25th & 26th; hot wind, 12th.
Cassilis	140	.....	.....	75·1	.....	E.	0·9	88·6	61·6	104·1	44·2	1·100	4	0·730	28	2·826	N.E. gale, 24th; thunderstorm, 31st.
Muswellbrook	96	.....	.....	.....	.....	N.W.	1·3	.....	69·6	.....	54·3	1·160	1	1·160	28	9·860	Hail, 19th; thunderstorms, 19th and 20th.
Dubbo	230	.....	.....	.....	.....	E.N.E.	0·9	92·3	.....	100·9	.....	0·400	4	0·170	6	10·031	
Mudgee	120	.....	.....	77·2	.....	E.S E.	0·7	90·4	64·0	102·4	49·0	2·570	7	1·250	20	9·258	Heavy thunderstorms, 8th 11th; tnunder prevalent.
West Maitland	16	.....	.....	76·4	.....	S.E.	0·8	87·0	65·8	104·1	55·5	1·750	8	1·950	28	6·652	Thunderstorms, 8th and 9th.
Lambton	7	.....	.....	71·9	.....	N.	1·4	81·0	62·7	105·8	52·0	2·000	7	0·900	28	6·470	Very foggy, 20th and 21st.
Newcastle	1	112	29·974	70·8	75·0	N.E.	0·1	77·8	63·8	103·3	55·3	1·370	8	0·640	28	.....	Meteor, 1st; hot wind, 3rd; thunderstorms, 7th, 8th, 10th, 12th, 18th, 20th, 21st. 25th, and 31st.
Orange	132	2891	.....	69·8	.....	W.	1·9	81·8	57·8	91·5	39·1	1·730	9	0·490	10	5·803	Thunderstorms, 8th, 11th, 17th, 19th, and 31st.
Bathurst	100	2200	29·975	72·8	64·0	N.N.W.	1·2	90·4	55·2	100·5	40·7	1·560	5	0·490	20	.....	
Kurrajong	35	1870	.....	67·0	.....	E.N.E.	...	75·9	58·0	94·0	46·0	3·650	10	1·850	27	.....	Thunderstorms, 8th and 10th.
Woodford	50	2192	30·039	68·4	.....	W.	0·1	76·1	60·7	93·4	48·7	3·340	11	1·260	20	.....	Thunderstorms, 8th, 10th, 17th, and 31st. Dense fog, 4th and 20th; hot wind. 22nd.
Parramatta	16	.....	.....	74·6	.....	S.	0·8	85·4	63·8	96·0	52·6	1·180	7	0·410	9	5·184	Thunderstorms, 6th, 7th, 12th, 13th, and 25th; hot wind, 30th.
Sydney	5	155	29·991	71·6	71·5	N.E.	0·9	79·3	64·0	103·8	54·5	0·565	11	0·307	9	6·158	Thunderstorms, 8th, 10th, 19th & 20th; hot wind 22nd and 24th.
Liverpool	16	.....	.....	72·3	.....	.....	...	83·0	61·5	100·0	50·0	1·065	12	0·445	9	.....	
Wentworth	520	.....	.....	81·1	.....	E.	1·8	97·8	64·3	116·8	46·8	0·610	5	0·270	12	9·922	Thunderstorms, 9th, 18th & 31st.
Wilton	13	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	1·160	7	0·350	27	.....	Thunderstorms, 7th, 11th, 17th, and 24th.
Cordeaux River	10	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	2·730	9	1·150	27	.....	Thunderstorms, th, 11th, 19th, and 20th; gale, 12th; hot, 23rd.
Young	148	.....	.....	73·7	.....	N.W.	0·7	94·4	53·0	106·0	49·0	1·340	4	0·520	31	12·663	Hail, 24th; eclipse visible, 12th; thunderstorms, 17th and 24th; hot winds, 21st, 22nd and 24th.
Wollongong	0	.....	.....	70·6	.....	N.E.	0·8	79·1	62·0	86·9	49·7	0·340	1	0·340	9	4·901	
Moss Vale	31	.....	.....	70·6	.....	N.	0·8	81·5	59·6	96·4	43·8	2·100	9	0·910	9	.....	Thunderstorms, 8th, 11th, 17th, and 24th.
Goulburn	57	2129	29·972	71·6	52·0	N.W.	0·1	87·6	55·6	102·9	39·0	1·820	9	0·490	9	5·505	
Terrara	0	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	2·520	7	1·020	9	.....	Thunderstorms, 9th, 10th, & 18th; hot winds, 12th & 23rd; W. gale on 13th.
Wagga Wagga	164	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	.....	...	.....	...	.....	
Cape St. George	0	175	29·916	72·7	76·0	N.E.	0·8	82·4	62·9	105·2	52·6	0·867	6	0·470	9	.....	Thunderstorms, 8th, 9th, 10th, 11th, 18th, and 30th; gale, 12th.
Queanbeyan	63	.....	.....	68·5	.....	W.	0·0	78·1	58·9	90·2	42·7	2·430	9	0·620	31	6·193	Very severe storm, 7th; stormy, 15th.
Urana	224	.....	.....	83·4	.....	N.W.	...	95·8	71·0	100·1	55·1	1·580	1	1·580	7	7·342	Thunderstorms, 6th, 7th, and 8th; hot wind, 16th and 22nd.
Deniliquin	278	410	30·023	67·4	54·0	S.E.	1·2	98·1	36·6	115·1	24·5	1·100	6	0·410	12	.....	Thunderstorms, 1st, 4th and 5th; snow, 12th.
Kiandra	84	4640	29·995	59·3	61·0	N.W.	0·7	75·4	43·1	89·5	24·7	5·940	11	2·320	11	.....	Thunderstorm, 7th and 8th; hot wind, 21st; gale, 12th.
Cooma	47	2637	.....	.....	.....	N.	2·6	.....	52·8	96·0	33·3	1·670	8	0·530	11	5·191	Thunderstorm, 4th, 5th, 6th, and 7th.
Albury	163	572	.....	.....	.....	N.	1·0	96·5	.....	108·5	.....	2·200	4	0·980	8	10·002	Thunderstorms, 4th, 5th, 9th, 17th, and 23rd; hot wind, 22nd; eclipse visible, 12th.
Eden	0	107	29·772	70·4	63·0	N.E.	1·4	79·7	61·1	106·0	54·1	1·470	6	0·600	17	.....	

Arranged in order of latitude, with distance from the coast, and height above the sea where it is known. Only eight of the stations have barometers and hygrometers.

METEOROLOGICAL CURVES